ADMINISTRATION REPORT, MADRAS.

1911-1912.

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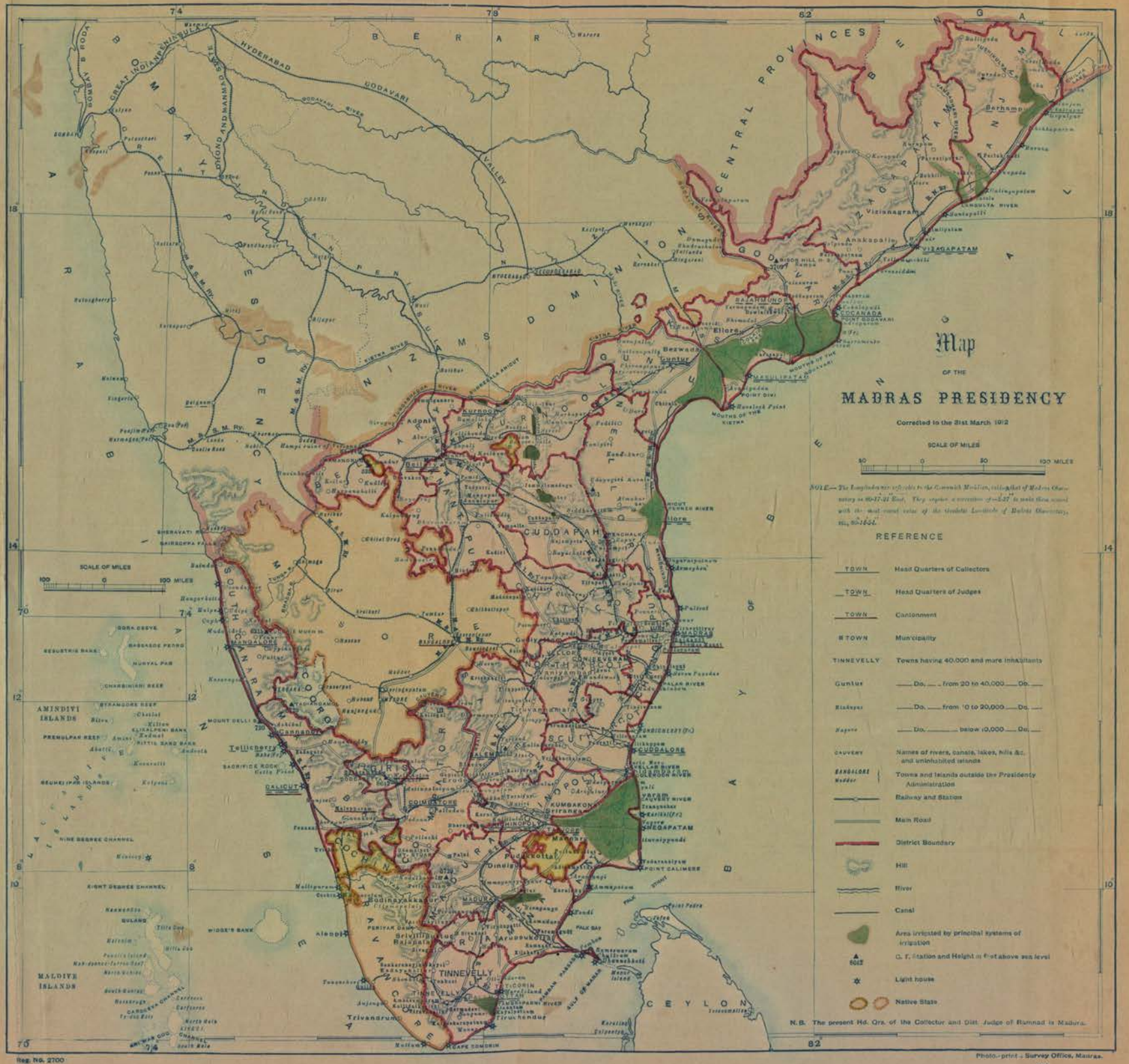

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ON THE

ADMINISTRATION

OF THE

MADRAS PRESIDENCY,

DURING THE YEAR

1911-1912.

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INTRODUCTION.

THE report on the Administration of the Madras Presidency for the year 1911–1912 contains certain revised chapters, the headings of which are, in accordance with the instructions of the Government of India, printed in red letters. These chapters, which are revised decennially, were for the first time included in the Administration Report for 1901–1902 and were before that year published in a separate volume entitled "The Manual of Standing Information for the Madras Presidency." The other chapters of the present report, which follow the same lines as those in last year's report, deal with the official year 1911–1912, unless another period is specially mentioned at the head of a chapter or paragraph. The references in italics in the margin of Part I are to corresponding paragraphs in Part II.

PART I.

GENERAL SUMMARY.

PART I.

GENERAL SUMMARY.

I.—GENERAL AND POLITICAL.

General.

1. The year 1911–1912 was rendered memorable by the occasion of the Royal and Imperial Visit to India, and the day of the Coronation Darbar at Delhi was celebrated by universal and spontaneous rejoicings in every town and village of the Presidency. Although conditions were largely adverse during the year under review, owing to the partial failure of the south-west monsoon and the consequent rise in the prices of food-grains, the people in general were prosperous, the land revenue rose and was collected without difficulty, trade expanded, the co-operative movement grew steadily and there was only a slight increase in the volume of grave crime. The operations of the Agricultural Department proved of increasing practical utility and the progress made both in the methods and results of public instruction, great as is the amount of the work yet to be done, was commensurate with the prominent position long held by the Presidency in matters of education. The gross revenue exceeded that of the previous year by Rs. 92·50 lakhs, the surplus amounting to Rs. 943·70 lakhs. The record of the year was, however, stained by the assassination of Mr. Ashe, the Collector of Tinnevelly, and papers discovered on the body of the murderer, who committed suicide to escape instant arrest, proved the existence of a wide-spread conspiracy directed from Pondicherry. In consequence of these disclosures fourteen persons were committed for trial before a special tribunal consisting of three Judges of the Madras High Court and nine were convicted and sentenced to varying terms of imprisonment.

Personnel of the Administration.

2. His Excellency the Hon'ble Sir Arthur Lawley, G.C.S.I., G.C.I.E., K.C.M.G., continued to hold the office of Governor till the 3rd November 1911 when, on the completion of his extended term of office, he was succeeded by Sir Thomas David Gibson-Carmichael, *Bart.*, K.C.M.G. (now Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.). Lord Carmichael resigned the office on the 29th March 1912, and the office of Governor devolved, under section LXIII of 3 & 4 William IV, Cap. 85, upon the Hon'ble Sir Murray Hammick, K.C.S.I., C.I.E., I.C.S., who took his seat the next day. The Hon'ble Mr. V. Krishnaswami Aiyar, C.S.I., Member of Council, died on the 28th December 1911, and the Hon'ble Mr. P. S. Sivaswami Aiyar, C.I.E., was appointed Member of Council from the 27th February 1912. On the 30th March 1912, the Hon'ble Sir Harold Stuart, K.C.V.O., C.S.I., I.C.S., was appointed a temporary Member of Council in the vacancy caused by the assumption of the office of Governor by the Hon'ble Sir Murray Hammick.

His Excellency the Governor's Tours.

3. Sir Arthur Lawley did not make any tours during the year. Lord Carmichael left Guindy on the morning of Wednesday, the 28th February 1912, on a tour to the Chingleput, Tanjore, Madura, Trichinopoly and Coimbatore districts. At Chingleput His Excellency received and replied to an address from

the Municipal Council, and took the opportunity to present Coronation Certificates of Honour to two recipients. His Excellency also visited the District Court, the Reformatory School and the Municipal Hospital. From Chingleput His Excellency travelled by special train to Tanjore, where he visited the Temple, the Schwartz Memorial, the Sivaganga Tank, the Palace, the Municipal Hospital and the Jail. His Excellency received and replied to addresses from the Municipal Council, the District Board and the District Association. Madura was the next place visited. Here His Excellency was presented with an address by the Municipal Council, to which he replied. He inspected various public and private institutions including the Tirumalnaick's Palace, the American Mission Hospital, the Municipal Hospital, the Perumal and Minakshi Temples, the Madura College and the American Mission College, where His Excellency laid the foundation stone of a new Science Hall. Thence His Excellency proceeded by special train to Trichinopoly. His Excellency received and replied to addresses from the Municipal Councils of Trichinopoly and Srīrangam, and visited the Rock Fort, the Srīrangam Temple, St. Joseph's College, the S.P.G. College, the Veterinary Hospital and the Jail. His Excellency continued his tour to Coimbatore, where the Municipal Council and the District Board presented him with addresses, to which he replied. He visited among other institutions the Central Jail, the Gass Forest Museum, the Stanes' High School for European and Eurasian children, the Agricultural College and the Coronation Park and Recreation Ground. From Coimbatore His Excellency visited Ootacamund where he made a short unofficial stay, and returned to Madras on Monday, the 11th March 1912.

Travancore (M.E. 1086).*
Part II, paras. 266 to 292.

4. His Highness the Maharaja of Travancore did not leave the State during the year. His Highness on the 19th August 1910 completed the twenty-fifth year since his accession and the occasion was celebrated throughout the State. The seventh session of the Sri Mulam Popular Assembly was held in February 1911 and sat for seven days.

Land Revenue.

5. The current demand rose by about 0·75 lakh and the balance was reduced to 1 lakh. The number of distraints and sales decreased, and there was a slight increase in season remissions.

Protection.

6. There were four ordinary meetings and one special meeting of the Legislative Council. Three amending regulations were passed, one regulation to provide for the cutting and breaking of diminished, defaced and counterfeit British Indian silver coins and one regulation in connexion with the taking of the census. There was little variation in the figures under grave crime but there was a general increase in the number of offences committed. There was a rise in the number of cases for disposal by the magistracy and a slight decrease in the percentage of convictions. There was a small increase in the number of civil courts in the State, a rise in the number of suits instituted and a fall in the number disposed of during the year.

Production and distribution.

7. The season was not very favourable and there was a slight rise in the price of food-grains. The export duty on timber was reduced from 10 to 6 per cent. and has since been abolished. There was an increase in the total tonnage of vessels which called at the various ports, but the increase occurred only at Alleppey where the completion of the pier greatly increased the facilities for shipping. The expenditure on Public Works fell by about Rs. 2·50 lakhs. The Railway from Shencottah to Quilon continued to work at a loss. A survey for a line from Quilon to Trivandrum was completed.

* The year 1086 of the Malayalam Era commenced on the 16th August 1910 and ended on the 15th August 1911.

8. The receipts exceeded the expenditure by nearly Rs. 9·50 lakhs. Abnormal losses to the extent of Rs. 4,27,826 were written off so that the Darbar balance increased by only a little over 5 lakhs. Lapsed deposits amounted to Rs. 2·25 lakhs. Revenue and finance.

9. The introduction of the new Education Code resulted in the elimination of a considerable number of schools; there was, however, a more than proportionate increase in the number of pupils in the schools which survived. Education.

10. His Highness the Raja of Cochin spent two and a half months of the hot weather of 1911 at Coonoor, but otherwise did not leave the State. **Cochin. (M.E. 1086.)** *Part II, paras. 293 to 321.*

11. There was a small expansion of the land revenue demand proper and a considerable increase of miscellaneous land revenue. These, with the proceeds of the sale of the occupancy rights in land excluded from the forests and of new fishing rights, raised the total current demand to Rs. 11·75 lakhs. Rs. 10,000 were advanced to agriculturists. There was an increase in the number of coercive processes. Administration of the land.

12. A Census Regulation was passed and the Code of Criminal Procedure was revised. Two other regulations were amended and a proclamation was promulgated to provide for the better protection of telegraph lines in the State. There was a general decrease in the number of grave crimes reported and an increase in the percentage of conviction to cases charged. There was an increase in the number of documents registered. Protection.

13. The season was not particularly favourable for agriculture. There was an increase in the net revenue of the Forest Department and in the maritime trade at the port of Malipuram. There was a substantial increase in the amount spent on communications by the Public Works Department. The net earnings of the Railway gave a return of 3·7 per cent. on the capital outlay. Production and distribution.

14. There was an appreciable increase of revenue under all the main heads. Nearly 4 lakhs were transferred to the sinking fund, from which 10 lakhs were withdrawn for the repayment of the 5 per cent. State Debenture Loan of 1901, and the balance in the fund was Rs. 1,69,896. The net liabilities of the State were reduced by 8 lakhs. Revenue and Finance.

15. The net expenditure on education increased by nearly Rs. 50,000 and the number of Sirkar schools rose. Education.

16. His Highness the Raja of Pudukkōttai returned to the State in November 1911. He attended the Imperial Darbar at Delhi in December and returned to Europe under medical advice at the end of January 1912. **Pudukkōttai. (Fasli 1321.)*** *Part II, paras. 322 to 335.*

17. The introduction of the new rates of assessment under the Revenue Settlement scheme was completed in almost all the villages of the State. The special jamabandi for the settlement of old arrears of land revenue was also finished and some progress made in the introduction of new village accounts. Administration of the land.

18. Five regulations were passed during the fasli, the most important of which were the Treasure Trove and the Municipal Regulations. Crime in the fasli was much on the same level as in the previous fasli. The detection of grave crime was not satisfactory, but the preventive work of the police showed improvement. Criminal work in the courts was normal but civil litigation decreased. Protection.

19. The season was on the whole moderately prosperous, though the absence of rain at critical periods reduced the outturn of both wet and dry crops. The Production and distribution.

* July 1911 to June 1912.

expenditure of the Public Works Department increased especially in the Irrigation branch but was still below the budget estimate.

Finance.

20. The total revenue of the State exceeded the revenue of the previous fasli which was itself the highest on record. The reorganization schemes proposed in the previous year came into force and the general working of the various departments improved.

Public health. Education.

21. Public health was generally good. The town of Pudukkōttai was constituted a municipality at the close of the fasli. Elementary education was made free throughout the State outside the capital and the attendance of children in the schools was considerably higher.

Banganapalle. *Part II, paras. 336 to 348.*

22. In the State of Banganapalle the principal event of the year was the visit of the Nawab to Delhi to attend the Coronation Darbar to which he had the honour to be invited. The total receipts of the year fell slightly while expenditure rose, mainly on account of the visit to Delhi. The season was not favourable. There was some failure of crop necessitating large remissions and postponement of collection of kist. A Forest Department was organized during the year and a Ranger appointed. A telegraph line was opened in October 1911. The progress of education was satisfactory. The Nawab himself conducted the jamabandi of several villages.

Sandūr. *Part II, paras. 349 to 356.*

23. During the year the Raja of Sandūr's course of education at Newington terminated and he returned to the State in December last. He is now receiving training in administrative work. The rainfall was less than the average of the preceding five years but the season was on the whole fair. The prices of food-grains were high, but the cultivator was not the worse for it, as cholam and sajja yielded an outturn of 12 to 16 annas during the year. The wages of labourers were good. The revenue receipts declined, chiefly owing to the fact that last year's accounts included the abnormal item of the arrear and current dead rent due by the General Sandūr Mining Company. The general health of the people was indifferent. Plague broke out in the State and continued for about five months while malaria was much in evidence. There was on the whole a decrease in the number of births, and an increase in the number of deaths as compared with the last year. The sanitation of Sandūr was however good and the town was improved by the opening of five new streets. Education was somewhat backward and the attendance of pupils fell in all classes of schools. The Kanivihalli Primary school, which had been closed for want of pupils, was re-opened in April. The construction of the Raja's palace is in progress.

Condition of the people. (Fasli 1321.)* *Part II, para. 357.*

24. The rainfall during the south-west monsoon was below the average. Though the north-east monsoon rains were nearly up to the average, the season was, on the whole, unfavourable. There was a general rise in the price of food-grains.

II.—ADMINISTRATION OF THE LAND.

Realization of Land Revenue. (Fasli 1320.)† *Part II, paras. 359 to 370.*

25. The current demand on account of peshkash was less than that in the previous year, the difference being mainly due to the elimination of peshkash of previous faslis on certain estates in Bhadrāchalam and Nugur taluks which was included in the peshkash of fasli 1319. Quit-rent on shrotriem villages also showed a decline. The total assessment on ryotwari holdings rose by six lakhs,

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* July 1911 to June 1912. † July 1910 to June 1911.

the increase being mainly due to the introduction of resettlement rates in Ganjām, Chingleput and Coimbatore and the expansion of cultivation. The revenue derived from water-rate and second crop charges rose by nearly three lakhs. Season remissions decreased by 9·70 lakhs. The total demand under land revenue and cesses rose to 731·64 lakhs, of which 98 per cent. was collected within the fasli. Of the arrear demand of 15·38 lakhs, 93·8 per cent. was collected within the fasli and 2·02 per cent. was written off the accounts. The balance outstanding at the end of the fasli was 14·01 lakhs which was considerably reduced by subsequent collections. Coercive processes were sparingly used in the collection of revenue and the proportion of the number of defaulters whose property was actually sold to the total number of pattadars was only 0·7 per thousand. The advances made during the fasli under the two Loans Acts decreased by 0·47 lakh owing generally to the favourable character of the season. The charges of district administration excluding the cost of village establishments were 7·5 per cent. of the land revenue and cesses realized. Including village service charges, the total charges amounted to 14·9 per cent., about the same proportion as in the previous year.

Surveys.
Part II, paras. 371 to 374.

26. Six survey parties were at work during the year, mainly in the districts of Ganjām, Chittoor, Rāmnād, North Arcot, Anantapur and Tinnevelly, though small areas were surveyed in the districts of Vizagapatam, Kistna, Chingleput, South Arcot, the Nilgiris, Cuddapah and Coimbatore. The total outturn of the six parties consisted of the cadastral survey of 10·15 square miles, the resurvey and the revision survey of 1,770·3 square miles of ryotwari lands and the cadastral survey of 254·1 square miles of proprietary estates. The outturn fell short of the forecast for the year by 93·55 square miles or 4·4 per cent., Party No. VI being mainly responsible for the short outturn. Revised touring maps of 13 districts and maps of 16 taluks were published during the year, in addition to village maps for an area of 1,745 square miles and proof copies of village maps were supplied to Settlement officers for an area of 733 square miles.

Settlement.
Part II, paras. 375 to 383.

27. All the five Settlement Parties which were at work at the end of the previous year continued their operations during the year under review. A classification of soils was carried out in the unsettled villages of the Gumsūr taluk in the Ganjām district and the necessary preliminary enquiries in connection with the resettlement of those villages of the taluk which had already been settled for the first time were completed. In the North Arcot district the special revenue staff was at work in the taluks of Wallajah, Cheyyar, Vellore, Polur and Wandiwash, while the preliminary operations of the staff were completed in Gudiyāttam. The preparation of manuscript resettlement diglott registers was continued in the Chingleput district and before the close of the year the bulk of the registers for the district were submitted to the Board. In the Cuddapah district, resettlement rates were completely introduced in the Pullampet taluk, while the new rates were in process of introduction in the Rāyachōti taluk where the work has since been completed. The resettlement of the Erode taluk in the Coimbatore district was completed during the year and the preparation of manuscript diglott registers for those taluks of the district in which resettlement rates had been introduced during the previous year was in progress. In the Tinnevelly district the revised rates of assessment were introduced in the Kōvilpatti taluk and in the ten villages newly transferred to the Srīvaikuntam taluk, while the introduction of new rates was initiated in the Sankaranayinārkōil taluk as well as in the Sāttūr taluk of the Rāmnād district. The resettlement of the two last-mentioned taluks has since been completed. The aggregate land revenue demand of districts which were either settled or resettled

(excluding districts in which resettlement was in progress) represented an addition of 26·21 per cent. to the demand prior to settlement or resettlement.

Land Records. *Part II, paras. 384 to 387.*

28. Land Records staffs were employed in all districts except Rāmnād. The staffs in Coimbatore and Trichinopoly (Karūr taluk) were employed on survey or settlement, while those in Ganjām, Cuddapah, North Arcot and Chingleput were employed in connection with these operations and partly in attending to current maintenance or operations preliminary to regular maintenance. In Vizagapatam, Kurnool, Salem (three taluks) and Trichinopoly (four taluks) the Land Records staff was employed on current maintenance. In the remaining districts it was employed chiefly in attending to the operations preliminary to regular maintenance and to a small extent in connection with current maintenance. The preliminary operations in connection with the correction and completion of field maps were finished in South Canara and Nellore. Survey schools for the training of revenue subordinates and karnams were held in almost all districts. The inspection of survey marks by firka Revenue Inspectors was adequate in Vizagapatam, Guntūr, Kurnool, Nellore, North Arcot, Salem and the Nilgiris but was unsatisfactory in Cuddapah and Tinnevelly. The progress made in the renewal and repair of survey marks was satisfactory in Kurnool, Tinnevelly and North Arcot (Tiruppattūr taluk). Coercive processes were generally unnecessary for the recovery of the cost of renewals and repairs, but considerable difficulty was felt in the Nilgiris in collecting the amounts from ryots. Most of the sub-divisions sanctioned during the year were check-measured and mapped in Ganjām (Chicacole taluk), Vizagapatam, Gōdāvari, Guntūr, Kurnool, Bellary and the Nilgiris. In Cuddapah and South Canara the sub-divisions were check-measured, while only a few of them were mapped. The writing up and checking of village statistical registers and firka books was nearly completed up to fasli 1321 in Gōdāvari. Fair progress was made in Guntūr, Bellary, Nellore and the Nilgiris.

Waste Lands. (Fasli 1320.)* *Part II, para. 388.*

29. The area left fallow within patta holdings in fasli 1320, the last complete year for which figures are available, showed a decrease of about 10 per cent. due to the generally favourable character of the season. There was an increase of about 125,000 acres in the total extent of ryotwari holdings.

Court of Wards. (Fasli 1320.)* *Part II, paras. 390 to 401.*

30. There were 19 estates under the management of the Court of Wards at the end of the fasli year. The Kondamodalu, Telaprolu, Komāramangalam, Kāvalappara and Punnattūr wards attained majority during the year and their estates were restored to them. The ex-Zamindar of Parlākimedi died on the 15th April 1911 and his estate passed to the Parlākimedi ward. The Kangundi estate in North Arcot and the Kadavur estate in Trichinopoly were taken under management during the year. In the case of all the five estates which passed out of the Court's hands during the year substantial increments had been made both in the annual revenues and the cash balances during the period of management. The total expenditure on Public Works in all the estates under management | buildings, irrigation works, roads and other works—amounted to 18·2 per cent. of the ordinary charges. The surplus balance at the end of the fasli exceeded Rs. 20,000 in eight estates and Rs. 1 lakh in four. The balance in the Parlākimedi estate was Rs. 20·16 lakhs exclusive of Rs. 26·14 lakhs which passed to it from the ex-Zamindar on his death. As much as possible of this balance is being utilized for such objects as the survey of the estate, the investigation and restoration of irrigation sources, the repair of estate roads, the construction of a palace for the minor

* July 1910 to June 1911.

Zamindar and the extension of the college buildings. The balances in the other estates also are being, or will be, utilized as far as possible in carrying out similar desirable improvements. There were 8 wards at Newington at the end of the fasli year. The son of the Zamindar of Tiruvūr and the Raja of Sandūr continued in the institution during the year, and the son of the Zamindar of Udaiyārpālaiyam was admitted. The conduct and educational progress of the wards were generally satisfactory. The Komāramangalam Zamindar remained at Newington after he attained majority and left it at the end of May 1911 after passing the B.A. degree examination. As usual, special care was taken to impart moral and religious instruction to the wards and to provide for the due performance of all their religious ceremonies. They took open air exercise on horseback and in the play ground. The other wards, who were up-country, were generally reported upon favourably.

Revenue and rent-paying classes (Fasli 1320)*

Part II, paras. 402 to 405.

31. The principal revenue-paying classes of the Presidency are zamindars, whole inamdars, minor inamdars and ryotwari pattadars. The last class predominates largely and contributes about 78 per cent. of the land revenue. The number of holdings increased by about 9 per cent. Tenants in zamindaris and whole inam villages constitute the rent-paying classes. The relations between landlords and tenants were, on the whole, fairly satisfactory.

III.—PROTECTION.

Course of Legislation.

Part II, paras. 412 to 414.

32. Including three adjourned meetings, seven meetings of the Legislative Council were held during the year. Three Acts were passed, viz., the Madras Equitable Assurance Society's (Amendment) Act, 1911, the Limited Proprietors Act, 1911, and the Madras Hackney Carriage Act, 1911.

Police (1911).

Part II, paras. 415 to 431.

33. The increase in the strength of the police was inconsiderable. The total cost of the department rose slightly, the increase being mainly due to the further progress made in the reorganization of the department. The conduct of the police was generally good. The statistics of departmental punishments did not show any marked variations but the number of police officers judicially punished increased. There was an appreciable fall in the number of police officers granted monetary rewards by Government as well as in the amount disbursed from the police budget grant on this account, but a larger number of police officers were rewarded by promotion for good work. Four officers received titles and eight the King's Police Medal. The Provincial Training School, Vellore, was credited with another year's useful work as also were the two Central Recruits' Schools at Vellore and Vizianagram. There was a slight improvement in the season in the early portion of the year; from September onwards the prices of food-grains began to rise steadily and were at the end of the year higher than the average for the whole year but grave crime increased only slightly. The most notable event of the year was the assassination of Mr. Ashe, Collector of Tinnevelly, who was shot dead in broad day-light by a political assassin on the 17th June. This event led to the discovery of the existence of a treasonable conspiracy for the overthrow of British rule in India. After an elaborate investigation fourteen persons were charged and tried by a special tribunal, presided over by three Judges of the Madras High Court, and

* July 1910 to June 1911.

nine of them were convicted under section 121-A of the Indian Penal Code and sentenced to various terms of imprisonment. A serious riot occurred in Coimbatore town on the last day of the Mohurrum which was due to the attempt of the Town Police to prevent the customary mumming in the public streets. Almost the whole of the property and records of the police station were burnt. The Inspector's house was also attacked, the stable and outhouses being set on fire. A riot occurred in Kandukur in Nellore district in consequence of the local Muhammadans going in procession into an area into which they had been forbidden to enter. Another in North Arcot district owed its origin to the Hindus taking a procession in front of a mosque. The rioters in all the cases were dealt with suitably. There was a decline in the percentage of crime detected, in the recovery of lost property and in the percentage of cases successfully prosecuted by the police. The number of cases struck off as maliciously and wilfully false as well as the number of persons prosecuted for making false complaints remained the same as in the previous year but a larger number of convictions were secured. There was a falling off both in the number of registered bad characters convicted and in the number of old offenders convicted under section 75 of the Indian Penal Code during the year and the number of persons ordered, under section 565 of the Criminal Procedure Code, to notify their residence was also smaller. The registration of the members of wandering gangs proceeded steadily. In Nellore district a dangerous criminal gang of Kathiras of considerable size was induced to accept employment in the mica mines. A larger number of persons were prosecuted under sections 400 and 401 of the Indian Penal Code. A smaller number of persons were put up under the security sections of the Criminal Procedure Code and a fair percentage of them were bound over. The Criminal Investigation Department including the Finger Print Bureau continued to do valuable work. The new Police Order book was approved by Government. Training in *jiu jitsu* was introduced in the Madras City Police and at the Vellore Training School. The public peace was generally well maintained.

Criminal Justice (1911).
Part II, paras. 432 to 446.
Original Jurisdiction.

34. The total number of original cases instituted in the criminal courts of the Presidency in 1911 was nearly 340,000 but was over 2,300 less than the number in 1910. The decrease was due mainly to a decrease in prosecutions under Special and Local Laws in the Presidency town. In the report for 1910 the number of cases instituted was stated to have been about 284,000 only. This was due to the fact that for many years "instituted" when used in this connection has been confined to cases in which the accused persons actually appeared before the courts, but the term has now been given a wider and more correct significance. In Village Magistrates' Courts there was a considerable increase both in the number of Magistrates who exercised their powers and in the number of cases instituted. In other Magistrates' Courts in the mufassal the number of cases instituted was larger than in 1910, but the arrears at the end of the year were slightly less and the average duration of the cases tried was the same, *i.e.*, 6 days. Deputy Magistrates were again slower than any other class of Magistrates in disposing of their work, the average duration of cases in their courts being 24 days. A few more cases than usual were committed for trial to Sessions Courts, and the average period between committal and the conclusion of the trial was slightly longer. As in the previous year the Sessions Courts to which the largest number of cases were committed were those of Coimbatore, Tinnevelly and Salem. The Sessions Judges of almost all districts report that the juries in their courts did their work on the whole satisfactorily. In the High Court the Criminal Sessions occupied nearly double the usual time; and besides this a special bench of three Judges was occupied for 53 days in the trial

of a case under Act XIV of 1908 connected with the murder of Mr. Ashe, Collector of Tinnevelly, which had not been finished at the end of the year.

Appellate and Revision Jurisdiction.

35. There was a decrease of more than 1,250 in the number of persons who appealed to First-class Magistrates against the decisions of Second and Third-class Magistrates; but on the other hand there was a slight increase in the number who appealed to Sessions Courts against the original decisions of First-class Magistrates and a considerable increase in the number who appealed to the High Court against the decisions of Sessions Courts. In the appeals disposed of by First-class Magistrates only 55·12 per cent. of the sentences imposed on the appellants by the original courts were confirmed, a proportion lower than that of any recent year. In Sessions Courts the percentage was higher than in 1910 and in the High Court slightly lower. In all classes of revisional courts there was a decrease in the number of revision petitions presented, but it was not considerable except in Sessions Courts. On the other hand a larger number of cases were taken up by the courts for revision *suo motu* than in 1910, especially by the High Court and District Magistrates. Death sentences on 63 persons were referred to the High Court for confirmation: only 28 were confirmed, 19 were reduced to some other punishment, and 16 were reversed. Sessions Judges referred to the High Court what they considered to be wrong verdicts on 43 persons; the verdicts in respect of 26 of these persons were upheld.

Prisons (1911). *Part II, paras. 447 to 453.*

36. The status of the Vizagapatam District Jail was raised to that of a second-class central jail. Owing to the redistribution of districts five sub-jails were closed and four new sub-jails were opened. The available jail accommodation decreased slightly, though there was an increase in the number of cells. The daily average jail population fell considerably. No State prisoner was admitted during the year and only one of this class was in confinement. The number of direct admissions of convicts decreased. There was a reduction in the number of boys admitted under the age of 15 and an increase in the number of girls. A fair measure of progress was made in the District Jail at Tanjore in the training of adolescent prisoners on the Borstal system. Twelve convicts escaped in 1911 and 11 of these in addition to three others who escaped in previous years were recaptured. The offences and punishments declined and whipping was inflicted in only 12 cases. Habituals formed 26 per cent. of the convict population and received 47 per cent. of the punishments and all the whippings. The number of convicts released under the remission rules was slightly smaller than in the previous year. On the Durbar day 1,655 convicts and 95 civil debtors were liberated. One of the main features of the year was a further decline in the death-rate to 13·48 from 14·47 in the previous year in which was recorded the lowest death-rate in the jails of the Presidency. There were five deaths from cholera and one from plague. The total expenditure including outlay on buildings has slightly increased.

Civil Justice (1911). *Part II, paras. 454 to 473.*

37. The total number of suits instituted in the civil courts of the Presidency in 1911 was over 450,000 and was 8,000 above the number in 1910, which was the highest so far recorded. One suit was instituted for every 92 persons in the population. In the Presidency town the ratio was one for every 25 persons: in the mufassal North Malabar was as usual the most litigious district, with one suit for every 46 persons, and Bellary the least litigious, with one suit for every 357 persons. The total value of the suits instituted was Rs. 642 lakhs, a larger amount than in any year except 1910. The number of suits valued at Rs. 20 or less again formed over 40 per cent. of the total. There was a slight increase in the number

of suits brought before Village Courts, which as usual did their work promptly. In Revenue Courts nearly 23,500 suits were filed, the figures of 1909, the first year after the introduction of the Madras Estates Land Act, under which all but a very few of the suits in Revenue Courts are now brought, being exceeded. Divisional Officers, who preside in almost all those Revenue Courts which exercise their jurisdiction, were not able to keep pace with the suits instituted, and consequently more than half of those filed in the year were left pending at its close. In District Munsif's Courts over a quarter of a million suits were instituted, the number being almost as large as in 1910. The District Munsifs worked hard, but over 60,000 suits were left pending in their Courts. The quality of their work was good: appeals were preferred against their decisions in only 12·5 per cent. of the cases in which appeals were possible, and over 70 per cent. of the appeals heard were dismissed. The District Judges and Subordinate Judges were unable to keep pace with the suits filed in their Courts, and of ordinary suits they left more than a year's work in arrears. In both the Presidency Court of Small Causes and the City Civil Court there was an increase in the work coming in and the work done: in the Court of Small Causes the disposal of suits was commendably prompt. In the High Court in consequence of the absence of Judges and the pressure of criminal work less original civil work than usual was done. The total number of appeals preferred in the appellate Courts of the Presidency was 800 more than the number in 1910. In District and Subordinate Judges' Courts, though the number disposed of increased by nearly 1,500, the arrears increased by 500. In the High Court the absence of five Judges on account of the Coronation Durbar at Delhi and an unusually large amount of criminal work prevented the disposal of as many civil appeals as in 1910. During the course of the year two permanent Subordinate Judges' Courts and five permanent District Munsifs' Courts were established, and one temporary Subordinate Judge's Court and four temporary District Munsifs' Courts opened. In spite of this there was a slight increase of arrears in District Munsifs' Courts and a considerable increase in District and Subordinate Judges' Courts. A special inquiry is now being made to determine what further assistance the Civil Courts of the mufassal require and how far their jurisdictions should be re-arranged and their establishments re-organised. The increase of arrears in the High Court led to the appointment of two temporary additional Judges at the beginning of the present year.

Registration (1911).
Part II, paras. 474 to 479.

38. The newly-constituted revenue districts of Chittoor and North Arcot were placed under the Registrar of North Arcot with head-quarters at Chittoor. Fourteen registration offices were opened. Seven sub-registry offices at the head-quarters of registration districts were amalgamated with the offices of the District Registrars and one sub-registry office was amalgamated with an adjoining sub-office. Two sub-districts were abolished. The number of documents registered showed an increase of 1·27 per cent. over the transactions of 1910, which is attributable mainly to the facilities afforded by the opening of new offices and to the unfavourable nature of the season in several districts. Sales and mortgages formed, as usual, the bulk of the transactions. The aggregate value of registered documents increased from 32·20 crores in 1910 to 34·07 crores.

Notaries Public.
Part II, para. 480.

39. There were 178 registering officers who were Notaries Public and 141 stations. Transactions were confined to 21 stations. The Negotiable Instruments dealt with were 137 bills of exchange and 42 promissory notes. The fees realised amounted to Rs. 458–12–0 and a sum of Rs. 17–9–0 was incurred on legal expenses.

Registered Companies. *Part II, para. 481.*

40. Forty companies were registered during 1911–1912 against 37 in the previous year. The number of Provident Funds registered was two, against 61 wound up. Of the companies registered, those deserving special mention are (*a*) the Ganjām Road Train Company, Limited, in the Ganjām district, (*b*) the Motor Transit and Trading Company, Limited, in the Vizagapatam district, (*c*) the Motor Service Company in the Salem district, (*d*) the South Indian Motor Union and (*e*) the Sri Chithambara Vinayakar Mills, Limited, in Madras having for its object spinning and weaving. The average paid-up capital of Joint Stock Companies was the highest recorded since 1902–1903.

Co-operative Credit Societies (1911–1912). *Part II, paras. 482 to 487.*

41. During the co-operative year 1911–1912 ending on 30th June 1912, the number and membership of central, urban and rural societies increased by over 50 per cent. The largest number of societies was in the districts of Chingleput and Anantapur, while the smallest numbers were in Ganjām, Bellary and Nellore. The number of unions was 3 against 1 at the close of the previous year. The additions to the number of societies during the year involved large increases in the total working capital, the net profits and the reserve funds of the societies, while there was a concomitant rise in the number of loans issued. The movement has already reached a point at which there are indications that the present inspecting agency will need reinforcement if it is to deal adequately with the increasing volume of transactions. Several District and Taluk Conferences of societies were held during the year.

Local Board Administration. *Part II, paras. 488 to 498.*

42. The number of district boards rose from 23 to 25, two new district boards, Rāmnād and Chittoor, having been created with effect from 1st April 1911. There was also an alteration in the maximum strength of seven of the boards. There was a slight increase in the proportion of elected members to the total strength of the boards. Both the number and maximum strength of taluk boards and union panchayats rose during the year. The system of appointing members by election to taluk boards which was introduced in 1909–1910 was extended, the proportion of members to be elected being enhanced from 5th January 1912 from one-third to one-half. The percentage of official to non-official members on these boards was slightly higher than in the preceding year. The taluk boards of Ellore, Chittoor and Cuddalore were given the privilege of electing their presidents from among their own number. The total income of the local boards excluding the transactions under debt heads increased and their expenditure amounted to 93·9 per cent. of the receipts. About 54·6 per cent. of the expenditure was devoted to public works including 31·6 per cent. on repairs to communications. The outlay on education was about 10·9 per cent. The number of medical institutions was five more than in the previous year, but the number of patients treated thereat fell slightly. The outlay on such institutions was about 6 per cent. of the total expenditure. The profit derived by the Tanjore and Kistna District Boards from their railways amounted to 6·9 per cent. in each case on their total capital outlay.

Municipal Administration. *Part II, paras. 499 to 506.*

43. The number of municipalities was the same as in the previous year. There was, however, a decline in the actual strength of the Councils, the decrease occurring both under *ex-officio* and nominated members and elected members. The former, however, continued to represent nearly one-half of the total strength. The proportion of Indian members to Europeans and Eurasians remained almost the same as in the previous year. The total current receipts of the several municipalities were 8·9 per cent. in excess of those of the previous year, and the average incidence of municipal taxation per head of the population showed an increase of

nine pies. The expenditure was nearly 90 per cent. of the receipts, the closing balance rising from Rs. 10·24 lakhs to Rs. 16·61 lakhs. Nearly a third of the total expenditure was upon public works and the outlay from municipal funds on the construction and maintenance of roads was 94·6 per cent. of the net income from tolls. The educational charges amounted to 8·4 per cent. of the total expenditure and the net outlay, after deducting income from school fees and other sources, formed 10·4 per cent. of the receipts from general taxation. The expenditure on medical relief was more than 8 per cent. of the total charges. The amount of public debt, excluding the sinking fund, outstanding against the municipalities at the end of the year was nearly half the annual revenue and about twice the total municipal balance on 31st March 1912. The sinking fund for the repayment of debts formed nearly 7 per cent. of the total balance of loans outstanding.

Madras City (1911-1912).
Part II, paras. 507 to 516.

44. The total receipts of the Corporation of Madras excluding the opening balance amounted to Rs. 34·32 lakhs or Rs. 1·76 lakhs more than in 1910-1911. The expenditure also rose from Rs. 36·60 lakhs to Rs. 36·89 lakhs and the closing balance was reduced to Rs. 18·46 lakhs or by Rs. 2·57 lakhs. The incidence of taxation per head of the population according to the Census of 1911, was Rs. 3-5-9 against Rs. 3-3-10 in the previous year. Of the total expenditure 60·03 per cent. was devoted to public works and 9·42 per cent. to conservancy. The number of miles of road reformed was 62·93 against 59·78 in 1910-1911. The debt at the close of the year amounted to Rs. 81·27 lakhs towards the repayment of which there were sinking funds to the extent of Rs. 23·15 lakhs. The net amount of debt outstanding against the Corporation at the close of the year was Rs. 58·12 lakhs, which gives an average of Rs. 11-3-3 per head of the population and represents 333·5 per cent. of the income from taxation. During the year loans to the extent of Rs. 3,49,500 were discharged. The total amount paid towards interest, repayment and sinking funds was Rs. 4·65 lakhs or 5·8 per cent. of the annual value of buildings and lands in the city against a maximum of 10 per cent. prescribed in the Madras City Municipal Act, 1904. The birth-rate and the death-rate rose by 0·4 and 2·2 per mille, respectively, during the calendar year 1911.

Military (Volunteering).
Part II, para. 517.

45. There were 7,650 efficient and extra-efficient volunteers in the Volunteer Corps within the Ninth (Secunderabad) Division during the year 1911-1912. On the 1st January 1912, the Jalarpet Company of the first Battalion of the Madras and Southern Maharatta Railway Rifles under Captain M. M. le Marchand were called out in aid of the civil power on the occasion of religious riots between the Hindus and Muhammadans at Tiruppattur in the North Arcot district. The detachment rendered invaluable service and received the thanks of Government.

Marine.
Part II, paras. 518 to 522.

46. There was a slight decrease in the receipts of the Madras Port Trust during the year, while the percentage of regular harbour earnings required for actual working expenses rose from 44 to 45. The alteration of the form of the Madras Harbour permitted the construction of quays at which vessels could lie and work all the year round. Trade continued to improve and the aggregate port dues at all ports in the Presidency again increased. The number of native passengers leaving the province by sea slightly increased. The provisions of the Indian Ports Act XV of 1908 were withdrawn from six minor ports. The number of vessels entering showed a slight fall. Dredging operations were carried out at Cocanada, Cuddalore, Negapatam and Tuticorin. A hydrographic survey of the ports of Cocanada and Tuticorin was undertaken by a special survey party. The Coast and Port lights worked efficiently. There was a slight increase in the number of wrecks and casualties and one life was lost.

47. There was a further decrease in the number of licences issued under the Arms Act, which is to be attributed mainly to a severer scrutiny in the renewal of old licences. The greater number of the licences issued were for single-barrelled muzzle-loading percussion guns. There was a large increase in the number of licences under the Explosives Act, due to the issue under that Act of licences for explosives intended for blasting purposes. The number of licences for sulphur rose slightly but the quantity of sulphur covered by them was less.

Arms, Explosives and Sulphur. *Part II, paras. 523 and 524.*

IV.—PRODUCTION AND DISTRIBUTION.

48. Mr. M. E. Couchman, I.C.S., who held charge of the office of the Director of Agriculture since the reorganisation of the Agricultural Department in 1905–1906 severed his connection with it and proceeded on furlough. His place was taken by Mr. G. A. D. Stuart, I.C.S. Mr. H. C. Sampson, Deputy Director of Agriculture, Southern Circle, was on return from leave placed on special duty in connection with a cattle survey of the Madras Presidency. Mr. Southern, Supernumerary Agriculturist, Pusa, continued to be his *locum tenens*. Of the two farms sanctioned during the year, regular work commenced at Manganallur and steps were taken to acquire lands required for the Anakāpalle farm. Orders were received after the close of the year for abandoning the Bellary farm as the soil was unsuitable for experimental purposes. Including Bellary there were at the close of the year nine working farms in the Presidency. Steady advance was made in popularising and extending to tracts where they were before unknown the purchase of fresh improved seed, economy in the use of seed, growing green manure crops and suitable rotations. Considerable success was also achieved in spreading the cultivation of sugarcane and improving the quality of cotton and stimulating the spread of their cultivation in Tinnevelly, Kurnool and Bellary. The operations for the eradication of palm disease were continued in the districts of Gōdāvari and Kistna and the disease was brought under control in the latter district.

Agriculture. *Part II, paras. 525 to 531.*

49. Mr. Ware held the office of Superintendent, Civil Veterinary Department, and Mr. Aitchison continued in charge of the Madras Veterinary College throughout the year. No new veterinary hospitals were started during the year but nine veterinary assistants were newly appointed. The number of deaths of cattle from rinderpest showed a decrease of 13,863 as compared with that of the previous year. Only two cattle shows were held during the year under report.

Civil Veterinary Department. *Part II, paras. 532 to 536.*

50. The character of the south-west monsoon was not favourable, but the north-east monsoon may be characterised as favourable. The dry and hot weather rains were generally below the average. The area under cultivation exceeded the normal extent by 2·07 per cent. The areas under paddy, ground-nut, sugarcane, cotton and tobacco increased, while those under cholam, cumbu, ragi, gingelly, castors and indigo showed a decrease. The outturn of all crops was below normal.

Weather and Crops. *Part II, paras. 537 to 540.*

51. For Horticulture in the Nilgiris the rainfall was good and the season on the whole favourable. The experiment with flax was carried on both at Coonoor and Ootacamund, the results obtained in the Ootacamund gardens being very satisfactory. A collection of lily bulbs was imported from Japan and other bulbs new to the gardens were obtained from England. The raising of Eucalyptus plants for the Forest Department was continued. The efforts to improve the turf in Sim's Park, Coonoor, met with a certain degree of success and increased attention was paid to fruit growing, with encouraging results.

Horticulture. *Part II, paras. 541 to 544.* Government Botanical Gardens and Parks, the Nilgiris.

The Agri-Horticultural Society, Madras, 1911.

52. At Madras the rainfall was erratic and the season on the whole unfavourable. There were only a few camphor plants left and there was no demand for rubber producing plants. Very few new plants were introduced during the year. There were however some good exhibits of perennials and the roses were the best grown for some years. Several improvements and alterations were effected in the Society's ornamental gardens on the Mount Road.

Cinchona Plantations.
Part II, paras. 545 to 548.

53. With the exception of a very small plot on the Dodabetta estate, no extensions of cinchona were made during the year, but the area under fuel trees was increased. The crop from the plantations was above the average, in consequence of the uprooting of old trees on the Dodabetta estate. It is estimated that in the course of the next four years this uprooting will be completed. The larger proportion of bark worked up in the factory consisted of Java Ledger bark imported from Amsterdam, and of bark purchased in the local market. The quantity of quinine manufactured was the largest on record, and the cost of the quinine per pound was considerably lower than in the previous year, the decrease being chiefly due to improvements in manufacture. The issues of quinine, both in bulk and in the form of pice packets, and the stock of both bark and quinine were above those of the previous year.

Fisheries.
Part II, paras. 549 to 551.

54. The Cannanore station of the Fishery department was transferred to Calicut, where a cannery was opened, and to Tanur, where experiments in fish-curing and in the manufacture of fish-oil and guano were continued. Owing to the profits obtained in 1910–1911, the nine small private oil and guano factories of last year increased to 45 during 1911–1912. The oyster farm at Pulicat showed a large number of oysters which were nearly mature by the end of March, being then less than 18 months old. The trout fishery on the Nilgiris was successfully opened in August 1911 and the catches were not only abundant but the fish unusually fine, scaling up to $5\frac{1}{2}$ lbs. in weight. The Sunkesula fish farm was practically completed and a large stock of breeding fish accumulated so that operations have started. The inspection of the pearl banks showed that no oysters were present; the crop of chanks was extraordinarily poor, owing to unfavourable weather for fishing and to the difficulty in recruiting a sufficient number of divers. Investigation work for further operations continued in all branches.

Forests (Fasli 1321).
Part II, paras. 552 to 570.

55. In the Forest department the principal event of the year was the opening of the Forest College at Coimbatore. Although this was not actually started until the 1st of July, the staff was assembled and all arrangements made within the year. The College is at present in temporary buildings, but it is hoped that permanent buildings will soon be ready for use. Now that it is no longer necessary to send Rangers and Deputy Rangers for training to Dehra Dun, the department hopes to obtain a greater choice of candidates for those appointments and to secure men of superior qualifications. It should be possible within a few years to fill the whole of the subordinate forest service with trained men. A scheme for the much-needed augmentation of the subordinate establishment has been submitted to Government and is now before it.

Forest Committee.

56. A Forest Committee consisting of the Forest Commissioner, two officials and two non-officials was appointed by Government and is still sitting to enquire into the whole of the grazing question as it affects the reserved forests in the Presidency, as well as into certain connected questions. Pending the result of its deliberations and the orders of Government thereon, no progress has been made in the preparation or sanction of schemes for the regulation of grazing. This is the

most pressing question in the administration of the department. Forest offences increased somewhat during the year. As, however, it is well known that the number of offences reported falls far short of the number which actually occur, the figures probably indicate only greater vigilance and activity on the part of the establishment. Very little progress has been made in the preparation of working plans. It is not possible to depute any officer of the controlling staff for this work nor can the officers in district charge do much of it in addition to their ordinary work. The season was a particularly bad one for fires owing to a protracted dry season and the early closing of the monsoon. The area of specially protected forest which was burnt increased greatly. The opening up of the higher Anamalai hills by private enterprise made considerable progress. A considerable extent of forest land was sold during the year to planters for coffee and tea cultivation. Elephant-catching operations were very successful, particularly in the Nilgiris district. It was decided to reduce the large establishment of young untrained elephants, as it was considered that it does not pay to keep them for a number of years until they are fit to work. It was decided that captures under ten years old as well as the calves born in captivity, should, as a rule, be sold. The excellent prices realised at a recent auction have fully justified this decision.

Policy.

57. The opening up of the forests by means of improved communications continued to progress, but no large schemes were sanctioned or commenced during the year. More than one of these are now under the consideration of the Government. The policy of transferring the distribution of forest produce from Government to private agency was largely developed.

Finance.

58. The total gross revenue of the year showed a marked rise. Expenditure also increased, but in a less degree; and the net surplus exceeded that of the previous year by nearly 50 per cent.

Mines.
Part II, paras. 571 and 572.

59. Compared with the previous year, the output of minerals worked showed an increase under manganese in Vizagapatam and steatite in Kurnool and a decrease under graphite in Vizagapatam and magnesite in Salem. The output of mica in Nellore during the year was nearly double that in the preceding year, in spite of the closure of nine mines, one of which was the most important mine in the district. The increase was due to greater demand in the foreign market. Gold was worked in three mines in the Anantapur district. A mining lease was granted for samarskite, a mineral of value, newly found in the Nellore district. The condition of the employees was generally good. There were only two fatal accidents during the year.

Manufactures (1911).
Part II, paras. 573 to 576.

60. There were 208 factories in the Presidency falling within the scope of the Indian Factories Act against 201 in 1910. The daily average number of operatives employed rose considerably, cotton mills alone employing nearly 40 per cent. of the number. The number of factories engaged in the ginning, cleaning and pressing of cotton fell, while the number of cotton spinning and sheaving mills increased. The number of rice mills also rose. There was a slight increase in the number of tile works, and a decrease in the number of sugar factories and iron and brass works and foundries. Nearly all of these factories were worked by steam power. The chief industries carried on in the concerns which are not classed as factories were coffee-curing, cotton-ginning and pressing, spinning and weaving, tanning,

fish-curing, tobacco-curing and printing. No other industry in the Presidency gave employment to a daily average of more than one thousand hands.

Sea-Borne Trade.
Part II, paras. 577 to 602.

61. The sea-borne trade for 1911–1912 showed a substantial expansion over that of the previous year, the total value increasing by 8 per cent. Both the foreign and the coasting trade increased by approximately the same ratio, the former by 8 per cent. and the latter by 9 per cent. Under foreign trade, imports rose by Rs. 81·71 lakhs or 7 per cent. while exports were greater by Rs. 177·56 lakhs or 8 per cent. The chief port registered a total trade of Rs. 2,121·55 lakhs against Rs. 1,901·75 lakhs in 1910-1911 and increased its share of the total trade of the Presidency from 40 per cent. to 41 per cent. The total trade of the outports amounted to Rs. 3,066·59 lakhs as compared with Rs. 2,901·98 lakhs in the previous year, to which total the ports of Tuticorin, Cochin, Cocanada, Calicut, Negapatam, Mangalore, Cuddalore and Tellicherry contributed over Rs. 100 lakhs each. Of these ports, Cuddalore, Cocanada and Calicut exhibited the greater variations in trade, the increases, which were mainly in the foreign trade, being 21, 16 and 7 per cent. respectively.

Foreign Trade.
Imports.

62. An increase of Rs. 105·60 lakhs or 10 per cent. was recorded in the value of the import trade in 1911–1912 over that of the previous year. This expansion was due chiefly to the activity in the trade in cotton yarn and piece-goods, the imports of the former advancing by Rs. 8·64 lakhs or 9 per cent. and the latter by Rs. 54·11 lakhs or by 22 per cent. In 1910–1911 the cost of raw cotton so raised the price of piece-goods that dealers were compelled to make purchases with extreme caution and to carry as small stocks as possible. In 1911–1912, however, the condition of the market improved, though prices remained at a high level, and piece-goods were imported freely to replenish the diminished stocks and to meet the demand consequent on the general prosperity of the Presidency. The trade in metals was well maintained and surpassed all previous figures in value though not in weight. The activity of the iron-producing industry at Pondicherry together with the policy of dealers in reducing stocks brought about a fall in the imports of bar iron, but this reduction was more than counterbalanced by the increased trade in steel and aluminium. The rate war waged between the Standard Oil Company and the Asiatic Petroleum and Burma Oil Companies brought about a reduction in the price of kerosene oil which stimulated sales and contributed to an increase in imports of Rs. 3·39 lakhs.

Exports.

The foreign export trade of Indian produce continued in a flourishing condition as the expansion from Rs. 2,089·63 lakhs to Rs. 2,288·51 lakhs clearly indicates. The products chiefly contributing to this increase were seeds, tanned hides and skins, rice and paddy, copra, coir manufactures and caoutchouc raw. Activity in the groundnut, castor and cotton seed trade was mainly responsible for an increase of 16 per cent. in the exports of seeds. The high prices obtainable for tanned hides and the smaller demand for raw skins during the past two years has encouraged the local tannery industry leading to increased exports of tanned hides and skins by 12 per cent. The increased exports of rice and paddy were due indirectly to the famine in the Far East. Much of the Burma rice trade was diverted thither from less distant markets which had in consequence to draw larger supplies from Madras. The development of the cocoanut industry in Malabar and Travancore consequent on the ever growing demand from the continental countries of Europe increased the exports of copra and coir manufacture by 45 and 16 per cent. respectively, while the exports of caoutchouc raw, expanded with the development of rubber plantations in Southern India.

Distribution of Trade.

Trade with the United Kingdom, whose share in the total trade rose from

41·01 per cent. to 41·24 per cent. increased from Rs. 1,300·64 lakhs to Rs. 1,435·14 lakhs, while trade with the British possessions representing 61 per cent. of the total trade advanced by 10 per cent. The trade with continental Europe rose from Rs. 891·56 lakhs to Rs. 959·52 lakhs, an increase of Rs. 68·46 lakhs, France, Germany and Belgium taking the chief share while Japan was responsible for the greater part of the increase of Rs. 14·69 lakhs in the trade with Asia. The expansion of Rs. 76 lakhs in the American Trade was traceable to the heavier receipt of kerosene oil and the larger shipments of tanned sheep skins while exports of rice to Reunion increased the trade with Africa.

Coasting Trade.

63. The coasting trade in Indian Produce increased by Rs. 14 lakhs as a net result of a shrinkage in imports of Rs. 101·8 lakhs and an expansion of Rs. 115·8 lakhs in exports. The chief variation occurred in the trade in food grains, for the supplies of rice and paddy from Burma, were less by Rs. 168·2 lakhs in consequence of the divergence of the rice trade to the Far East. This deficiency was made up by good local crops and by large imports of grain and pulse from Bengal and Eastern Bengal and Assam. Among minor variations, Bengal coal was imported by sea in larger quantities than in the previous year. In exports the expansion was general, the chief share being taken by groundnuts; Rs. 54 lakhs and Rs. 6 lakhs more of the seeds went to Bengal and Burma respectively while Burma and Bombay took larger quantities of the oil.

Shipping.

64. The total number of vessels engaged in foreign trade that entered and cleared was 3,456 with an aggregate burden of 3,834,115 tons as against 3,638 of 3,674,230 tons in the previous year. The average tonnage per vessel increased from 1,010 to 1,109. The number of vessels (excluding native craft) under the British flag which entered and cleared, was 1,984 with an aggregate burden of 3,141,299 tons while that under foreign flags was 212 with a tonnage of 610,345 tons. The number of vessels plying in the coasting trade fell from 36,244 to 33,225 and their tonnage from 16,117,790 tons to 15,520,597.

Public Works. (1911-1912.)

Part II, paras. 603 to 611.

General.

Civil and Military Works.

65. In the Public Works department, in order to relieve the Chief Engineer of some of his less important secretarial duties and to prevent the accumulation of papers during his absence from head-quarters on tour, a Deputy Secretary to Government was appointed. In addition to the reorganisation and strengthening of the Superintending Engineers' drawing offices, the question of increasing and improving the upper subordinate establishment was considered and proposals were submitted to the Government of India. There was an increase in the value of the major works under construction by the department and the total expenditure also rose. Good progress was made on most of the large works in charge of the department. The new Collector's office at Guntūr, the new Council Chamber at Fort St. George and the Police Recruits' school at Coimbatore were completed. The total value of the outturn at the Madras, Dowlaishweram and Bezwada workshops was a little less than that of the previous year.

Railways.

Part II, paras. 612 to 618.

66. The railway systems of the Madras Presidency are controlled by the Railway Board and there are no lines of railway under the direct control of the Madras Government. The Tanjore District Board Railway and the Bezwada-Masulipatam Railway are, however, subject to the general control of the Government. There was no addition to the open mileage during the year. The Madras and Southern Mahratta Railway Company, the South Indian Railway Company and the Bengal-Nagpur Railway Company continued to share the management of the greater portion

of the railways. The Bobbili-Salur and the Dharmapuri-Hosur lines are still under construction. Surveys of three lines were completed during the year and the surveys of two others were in progress. The works forming the links in the proposed connection of India with Ceylon advanced satisfactorily. There were two serious accidents during the year to the boat mail trains on the South Indian Railway, and 17 persons in all were injured and much damage was done to the rolling-stock. In September a severe cyclone passed over the East Coast line causing heavy damage to buildings and the track between Mandasa Road and Dusi. Temporary interruption of traffic was caused on three occasions by breaches due to floods and rains. The District Board Railways in Tanjore and Kistna worked at a net profit of 6·9 per cent. in each case.

Madras Electric Tramways.
Part II, para. 619.

67. There was an addition of 1 mile 6 furlongs to the open mileage, of the Madras Electric Tramways, of which 1 mile 1 furlong was double track. The cars ran 1,418,296 miles and carried 14,957,783 passengers.

Canals.
Part II, paras. 620 and 621.

68. The value of goods, the ton-mileage and the number of passengers carried, showed a large increase during the year on all canals.

Irrigation.
Part II, paras. 622 to 637.

69. The total area irrigated under all irrigation sources during the year was over seven million acres, the figures showing a decrease of 198 thousand acres as compared with those of the preceding year. The total revenue realised fell in consequence by six lakhs of rupees. The expenditure on Class I, Major Protective

Major protective works.

Works, Capital Account, was incurred mainly on the Venkatapuram project under execution in the Kurnool district. The Rushikulya system, irrigating over ninety-nine thousand acres, is the only system in operation under this head. The

Major productive works.

expenditure on Major Productive Works, Capital Account, was chiefly incurred on the Nagavalli River project, the Gōdāvari and Kistna delta systems, the Penner River canals system, the Shatiatope and Lower Coleroon anicut systems and the Cauvery delta system. The area charged as irrigated under this class of works was nearly three and a half million acres. The revenue derived from these works showed an increase of Rs. 6·33 lakhs on that of the previous year, while the working expenses decreased by about Rs. 1 lakh. The profit after paying interest charges, presented a return of 6·74 per cent. on the total capital outlay or 9·25 per cent., if

Minor works.

the Kurnool-Cuddapah canal be excluded. The area irrigated under minor works

Investigation of projects.

was 352 thousand acres. Under the Tank Restoration Scheme, the average area of cultivation of all works to be investigated is about 2·25 millions of acres, and up to the end of the year under review works supplying 46·61 per cent. of the area had been investigated, the expenditure during the year amounting to Rs. 4·82 lakhs. The plans and estimates for the Kistna Reservoir project were under scrutiny.

V.—REVENUE AND FINANCE.

General Revenue and Expenditure.
Part II, paras. 638 to 640.

70. The gross revenue of the Presidency under Imperial and Provincial funds in the year under review amounted to Rs. 1,756·70 lakhs and exceeded that of the previous year by Rs. 92·50 lakhs. Similarly the gross expenditure rose from Rs. 769·75 lakhs in 1910–1911 to Rs. 813 lakhs in 1911–1912. The surplus of the year thus amounted to Rs. 943·70 lakhs and exceeded that of 1910–1911 by Rs. 49·25 lakhs.

Imperial Revenues. *Part II, paras. 641 to 652.*

71. The receipts from Land Revenue amounted to Rs. 669·75 lakhs and were greater than those of 1910–1911 by Rs. 9 lakhs. This improvement was due chiefly to prompt collection of revenue in certain districts and to the introduction of resettlement rates and the extension of irrigation in a number of other districts. Land Revenue.

The customs revenue amounted to Rs. 79·75 lakhs and was greater than that of 1910–1911 by Rs. 6 lakhs, both exports and imports contributing towards the increase. The increase in the former was due chiefly to larger exportations of food grains while that in the latter was due to larger importations of cotton goods, manufactured articles and spirits and liquors. Customs.

The customs expenditure amounted to Rs. 3·87 lakhs as against Rs. 3·65 lakhs in the previous year. Salt.

The salt revenue amounted to Rs. 107·50 lakhs and was less than that of 1910–1911 by 1·25 lakhs owing to smaller realizations from cash and credit sales. The charges amounted to Rs. 17·30 lakhs as against Rs. 16·66 lakhs in the previous year, the increase occurring chiefly under purchase of salt and charges for conveying and storing salt. The quantity of salt manufactured during the year was 112·75 lakhs of maunds as against the average outturn of 107·50 lakhs. The total issues for home and inland consumption amounted to 117·75 lakhs of maunds as against 116·50 lakhs in the previous year.

The stamp revenue rose from Rs. 121·16 lakhs in 1910–1911 to Rs. 127·25 lakhs in the year under review. This increase was due partly to a rise in litigation and partly to a normal expansion of revenue. The charges amounted to Rs. 4·47 lakhs as against Rs. 4·30 lakhs in the previous year. Stamps.

The total realizations of opium revenue by the Excise department during the year amounted to Rs. 14·89 lakhs as against Rs. 13·92 lakhs in the previous year, the increase being due chiefly to larger issues of opium to Native States. Opium.

The receipts from excise amounted to Rs. 285·75 lakhs and were greater than those of the previous year by Rs. 22 lakhs. This improvement was due chiefly to increased consumption of country spirits. The charges amounted to Rs. 17·78 lakhs as against Rs. 17·70 lakhs in the previous year. Excise.

The receipts on account of income-tax amounted to Rs. 32 lakhs as against Rs. 31·25 lakhs in the previous year, while the charges in the two years were nearly the same. Assessed Taxes.

Imperial receipts from other sources amounted to Rs. 327·75 lakhs and were greater than those of 1910–1911 by Rs. 44·50 lakhs, the net traffic receipts of the Madras and Southern Mahratta Railway and the South Indian Railway mainly accounting for this increase. The expenditure under other Imperial heads amounted to Rs. 109 lakhs and was greater than that of the previous year by Rs. 7 lakhs, the excess being due mainly to larger outlay on State Railways. Other Imperial Revenues.

Provincial Revenues. *Part II, paras. 653 to 659.*

72. The Provincial accounts opened with a balance of Rs. 155·90 lakhs on 1st April 1911 and closed with one of Rs. 185·19 lakhs on the 31st March 1912. The transactions of the year thus resulted in a surplus of Rs. 29·29 lakhs which was the result of an aggregate revenue of Rs. 700·80 lakhs and a total expenditure of Rs. 671·51 lakhs. Land Revenue.

The comparison of the accounts of the two years under Land Revenue is made in the Imperial section. The charges under the head amounted to Rs. 129·40 lakhs and exceeded those of the previous year by Rs. 1·90 lakhs. The increased expenditure was due chiefly to the payment of the Royal bonus, the revision of village establishments and the formation of the new Chittoor district from 1st April 1911.

The receipts and charges under Forests which were formerly divided between Imperial and Provincial were made wholly Provincial with effect from 1911–1912. The total receipts of the Forest Department amounted to Rs. 41·65 lakhs and were better than those of the previous year by Rs. 2·85 lakhs. A more favourable market than the previous year for timber, firewood, charcoal and other Forests.

minor produce accounted for this improvement. The total expenditure amounted to Rs. 34·14 lakhs as compared with Rs. 32·25 lakhs in the previous year.

Registration.

The receipts under Registration amounted to Rs. 20·57 lakhs and were greater than those of the previous year by Rs. 1·29 lakhs. This increase was due chiefly to the facilities afforded by the opening of new registration offices during the year and to a rise in the number of registrations due to larger borrowings as the result of an unfavourable season. The charges amounted to Rs. 12·48 lakhs and were in excess of those of the previous year by Rs. 45,500.

Other Provincial Receipts.

The receipts under other Provincial heads amounted to Rs. 45·25 lakhs and were greater than those of the previous year by Rs. 47,000. This improvement is made up of increases chiefly under Interest, Police, Education, Miscellaneous and Civil Works in charge of Public Works Officers, partly counterbalanced by a falling off under Courts of Law, Jails, Scientific and other minor departments, Stationery and Printing and Irrigation (Major Works—Direct receipts).

Other Provincial Expenditure.

The expenditure under other Provincial heads amounted to Rs. 484·14 lakhs and exceeded that of the previous year by Rs. 30·89 lakhs. The excess was the net result of increases chiefly under Civil Works in charge of Civil Officers, Education, General Administration, Police and Courts of Law and decreases chiefly under Jails, and Minor Irrigation Works in charge of Public Works Officers.

Local Funds.
Part II, paras. 660 to 664.

73. The receipts and charges of Local Funds constituted under Act V of 1884 were Rs. 149·72 lakhs and Rs. 130·58 lakhs, respectively, and resulted in a surplus of Rs. 19·14 lakhs as against Rs. 12·56 lakhs in the previous year.

Proprietary Estates Village Service Fund.

The receipts of the Proprietary Estates Village Service Fund amounted to Rs. 14·12 lakhs and exceeded those of the previous year by Rs. 2·90 lakhs. The charges amounted to Rs. 10·16 lakhs and were more than those of the previous year by Rs. 4·35 lakhs. The transactions of the year resulted in a surplus of Rs. 3·96 lakhs. The fund closed with a balance of Rs. 16·51 lakhs at the end of the year. The transactions of the Bhadrāchalam Estate Village Service Fund and the Irrigation Cess Fund are comparatively small and do not require special mention here.

Port and Marine Funds.
Part II, para. 665.

74. The Madras Port Fund opened with a balance of Rs. 13,940 on 1st April 1911 and closed with a balance of Rs. 9,173 at the end of the year. The receipts of the fund during the year amounted to Rs. 1,00,931 and the expenditure to Rs. 1,05,698. The Minor Ports Funds opened with a balance of Rs. 1·71 lakhs. The receipts and charges amounted to Rs. 5·07 lakhs and Rs. 3·97 lakhs, respectively. The total security balance of these funds amounted to Rs. 15·71 lakhs at the end of the year. The receipts and expenditure of the Pilotage Funds amounted to Rs. 16,616 and Rs. 20,978, respectively, and thus resulted in a deficit of Rs. 4,362 at the end of the year. The total invested balance of the funds at the end of the year amounted to Rs. 1,67,200. The receipts and charges of the Landing and Shipping Funds amounted to Rs. 8,37,666 and Rs. 3,36,318, respectively. The total invested balance of the funds at the end of the year was Rs. 4,47,500. The Madras Coast Lights Fund opened with a balance of Rs. 52,036 and closed with a balance of Rs. 39,858. The invested balance of the fund was Rs. 34,000 at the end of the year.

Municipal Revenues.
Part II, para. 673.

75. The receipts and charges of District Municipalities amounted to Rs. 60·88 lakhs and Rs. 54·50 lakhs, respectively. The balance at their credit at the close of the year was Rs. 16·61 lakhs. The receipts and charges of the Madras Corporation amounted to Rs. 34·32 lakhs and Rs. 36·89 lakhs, respectively, the balance to its credit at the end of the year falling from Rs. 21·03 lakhs to Rs. 18·46 lakhs.

VI.—VITAL STATISTICS AND MEDICAL SERVICES.

Births and Deaths. *Part II, paras. 726 to 729.*

76. Act III of 1899 providing for the compulsory registration of births and deaths was in operation in 3,558 towns and villages, as in the previous year. The population of the Presidency, according to the census of 1911, was 41,829,232, exclusive of Europeans and Eurasians, and that for which statistics were furnished for the year under report was 40,347,357. There was a decrease in the total number of births registered during the year, and calculated upon the census population of 1911 the birth-rate for the Presidency fell slightly from 30·6 to 30·4 per mille. There was a large preponderance of male over female births and in all but 3 districts (Madras, Cuddapah and Bellary) the births were in excess of deaths. The highest birth-rate was among Muhammadans. There was an increase in the number of deaths registered during the year, the rate of mortality being 23·1 per mille of the population under registration. The deaths among males exceeded those among females, the excess proportion of male deaths approximately balancing that of male births. The mortality among children under one year of age averaged 183·4 per mille of births against 190·4 in 1910. The mortality from cholera was nearly doubled during the year, while that from plague was more than trebled; and large increases were reported in the number of deaths from small-pox (prevalent in every district of the Presidency), dysentery and respiratory diseases, but there was a marked decline in the mortality from fevers. Inferences from these figures must be subject to many qualifications on account of defects in the registering agency, and the decline in the last instance suggests rather more accurate classification and a lessening tendency to attribute all doubtful cases of death to fever than any authentic variation in the incidence of the disease. There was a small rise in the number of births registered in municipalities and the annual ratio was 35·4 per mille of population according to the census of 1911, or 1·6 less than the quinquennial average. The number of deaths registered in municipalities also rose slightly and yielded an annual ratio of 34·4, or 1 per mille less than the quinquennial average. The increase occurred chiefly under "cholera," "small-pox" and "dysentery and diarrhœa." The total average infantile mortality in municipalities was 244·6 per mille of births against 248·8 in the previous year. With reference to sex, the mortality among male infants was 257·1 and among female 231·4 per mille.

Emigration and Immigration. *Part II, paras. 730 to 733.*

77. There was a fall in the number of emigrants to Natal, due to the cessation of recruiting operations after the 30th June 1911. There were large increases in the numbers of emigrants to Trinidad and Fiji. There was no emigration to Mauritius or the Seychelles. A smaller number of emigrants returned than in the preceding year. There was a large increase in the aggregate amount of the savings brought back by the emigrants.

Medical Relief. *Part II, paras. 734 to 737.*

78. The total number of medical institutions at the end of the year was 655 and medical relief was afforded to nearly six and a half million patients. There was a slight fall in the total number of patients treated and a consequent decrease in the average daily attendance. The percentage of deaths among in-patients fell very slightly from 5·47 to 5·46. Among the principal diseases treated, ulcers and diseases of the skin ranked first while disorders of the digestive system, malarial affections, diseases of the eye and injuries came next in order of frequency. A large number of difficult operations were performed and the total number of operations of all kinds showed a marked increase during the year.

Lunatic Asylums. *Part II, paras. 738 to 740.*

79. There was an increase in the number of lunatics treated in the asylums at Madras, Vizagapatam and Calicut and the results of treatment were slightly more successful. The commonest form of insanity was as usual mania. The death-rate fell from 8·58 to 7·08 per cent.

Sanitation. *Part II, paras. 741 to 744.*

80. The minor sanitary works executed by local bodies consisted in the improvement of town sites, construction and repair of markets, slaughter-houses, latrines, drains, etc. All works of a sanitary nature estimated to cost over Rs. 2,500 each were subject to the approval of the Sanitary Board. The conservancy staff and plant employed by municipal councils showed a general improvement but, in many instances, it was deficient in numbers and in quality. Progress in the matter of sewerage during the year was very slow. With the exception of Ootacamund no system of sewerage exists in any town although schemes are under consideration by some of the municipal councils. With the introduction of comprehensive drainage schemes, sewage-farming will doubtless receive greater attention and the income derived therefrom would form a considerable addition to the municipal revenues.

Vaccination. *Part II, paras. 745 to 747.*

81. The number of vaccinations performed by all agencies throughout the Presidency during the official year 1911–1912 showed an increase and the percentage of success also rose. All operations were performed with the vaccine supplied by the King Institute of Preventive Medicine, Guindy. The "Trial Scheme" was in force in four districts and the question of its extension to other districts is now under consideration.

VII.—INSTRUCTION.

General Administrative Changes. *Part II, para. 798.*

82. No change of any importance was made in the Educational rules during the year. The revision of the Inspection Code was, however, completed, although the publication of the new code took place only after the close of the year. The Medical College and Medical Schools, which had been under the control of the Educational Department since 1855, were transferred during the year to the Medical Department.

General Statistics. *Part II, para. 799.*

83. The number of public institutions rose by 2 per cent. and their strength by 6 per cent. The percentage of males under instruction to the population of school-age rose from 33·3 to 34·4 and the corresponding percentage for females rose from 6·7 to 7·2; the percentage of the number of scholars, both male and female, to the total population of school-age also increased from 19·8 to 20·6.

Finance. *Part II, para. 800.*

84. The total expenditure on education amounted to Rs. 135·7 lakhs against Rs. 127·7 lakhs in 1910–1911. Of the entire expenditure on public schools, public funds met 46 per cent., fees 27 per cent. and other sources 27 per cent. The Government of India sanctioned a special non-recurring grant of 3 lakhs during the year, of which over one and a quarter lakhs of rupees were spent on improving the equipment of secondary schools with special reference to the secondary school-leaving certificate scheme, and Rs. 1·25 lakhs for the construction and equipment of elementary school buildings.

Madras University.

85. Affiliation was for the first time granted for Honours courses to the Presidency, Christian and St. Joseph's (Trichinopoly) Colleges in Physics and in History and Economics, to the two former also in Natural Science, Mental and Moral

Science and English, and to the first also in Chemistry and Sanskrit Language and Literature, and there were in all 92 students reading for Honours courses in the year. A teachers' college opened by the Government of Travancore was affiliated in the same year. The Christian and Presidency Colleges arranged that certain of the lectures in English Language and Literature in the two colleges should be open to students of both and the University sanctioned this arrangement for inter-collegiate lecturing. Government sanctioned certain amendments in the University Regulations in regard to the course in English Language and Literature for the B.A. Degree Examination.

Collegiate Education. *Part II, paras. 801 to 803.*

86. The number and strength of arts colleges increased. The U.F.C.M. Institution, Rayapuram, though not affiliated to the University, teaches girls up to the intermediate standard. An important change was effected in the system of recruitment of the subordinate staff of the College of Engineering. This is now to be from the Public Works Department so that the teaching in the college may be thoroughly in touch with practical work. In consequence of the reorganization of the Teachers' College, Saidapet, during the year, which included the transfer of the L.T. class from Rajahmundry to Saidapet, nearly 100 graduate teachers were trained at the Teachers' College, Saidapet, against only 57 in both the Rajahmundry and Saidapet Colleges in the previous year.

Secondary Education (Boys). *Part II, paras. 804 to 806.*

87. The number of public secondary schools (non-European) for boys fell slightly but their strength advanced. The scheme for the award of secondary school-leaving certificates has been adopted by all the high schools in the Presidency, and for the examination held in March 1912, 6,393 pupils were presented, of whom 2,111 sought to improve the certificates obtained in the previous year. At the Matriculation Examination 24 per cent. of the male candidates examined were successful.

Elementary Education (Boys). *Part II, paras. 807 to 811.*

88. Public elementary (non-European) schools for boys increased both in numbers and strength as did the number among them of schools with standards above the fourth. The number of girls in these schools also increased. Taking both boys and girls' schools together, the total number of boys under instruction in public elementary schools represented 27 per cent. of the total male population of school-age. Eighty-one per cent. of the schools continued to be under private management, and of these 22 per cent. were under mission management against 21 per cent. in the previous year, which indicates the extent of missionary activity in starting new schools and taking over schools from private managers. There was also an appreciable increase in the number of elementary schools under the management of local and municipal Boards. In addition to the annual subsidy, special grants were given to the local Boards for the opening of more elementary schools and the provision by them of elementary school houses; about 700 new schools were opened by the end of the year.

Special Education. *Part II, paras. 812 to 820.*

89. In training schools for teachers, the number both of masters and mistresses under training increased considerably. There has been a satisfactory increase in the number of pupils receiving instruction in technical or industrial subjects.

Female Education. *Part II, paras. 821 to 827.*

90. Including private schools, there was an advance both in the number and strength of non-European schools for girls. Public schools for girls, both secondary and elementary, increased in number and strength and the returns showed an addition of 84 schools and over 7,900 pupils. Including girls in boys' schools, the number of girls under instruction in public elementary schools represented 6·3

per cent. of the total female population of school-age. Girls' secondary schools continue to be on the whole better equipped than those for boys. Many of them were boarding schools and others had well managed hostels.

European Education. *Part II, paras. 828 to 831.*

91. The Breek's Memorial School, Ootacamund, ceased to work as a Government institution during the year and the Headmaster who is an officer of the Provincial Educational Service has been appointed to the newly created office of Assistant Inspector of European and Training schools. Notwithstanding a slight fall in the number of European institutions, the returns showed an increase in their strength. Out of the 85 institutions with 7,189 pupils, 42 with 3,364 pupils were for girls. The total number of European pupils in all classes of institutions was slightly larger than in the previous year. The results of the various examinations held under the Code of Regulations for European schools were generally satisfactory. Considerable improvement has been effected, by the aid of grants, in the furniture and teaching appliances of the schools. In the matter of accommodation also there has been a considerable advance.

Private and Indigenous Schools. *Part II, para. 835.*

92. There was again a fall in the number and strength of private institutions. The decrease was partly due to the transfer of some of the schools to the list of public institutions on their conforming to departmental standards and partly to some of the schools having been taken by local boards and missionary societies under their management. A scheme for the better aiding and administration of Sanskrit schools was sanctioned by Government during the year.

Government Examinations. *Part II, para. 839.*

93. There was an increase in the number of candidates under "examined" and "passed" as also in the percentage of subject-passes in the case of all three grades of the Technical Examinations. At the Special Test Examinations, the number of examinees increased, but there was a fall in the percentage of passes from 43·76 to 36·93. For the Prēcis-writing Test, 206 candidates appeared and 25 passed. The receipts exceeded the expenditure.

Lawrence Asylum. *Part II, para. 840.*

94. At the Lawrence Asylum the results of the High School examination, for which pupils from the male branch alone were presented, were far from encouraging, while those of the other European school examinations and of the Government Technical examinations were generally satisfactory. The strength of the school remained practically stationary.

Reformatory School. *Part II, para. 841.*

95. The strength of the Reformatory school rose slightly. Forty-six pupils were discharged during 1911 and of these 31 or 67 per cent. obtained employment. The general health of the pupils was good throughout the year.

School of Arts. *Part II, para. 842.*

96. The total strength of the School of Arts fell to a somewhat marked extent. The results of the Government Technical examinations were fairly satisfactory, the percentage of passed to the examined being 66. The number of artisans' sons increased in nearly all the departments except that relating to lacquer work. Endeavours are being made to develop and foster the *Indian spirit* in design.

Libraries. *Part II, para. 843.*

97. The daily average number of readers in the Connemara Library was 50. Many standard works and a number of periodicals of general interest were added during the year and the Library now contains about 15,000 standard works. Of the manuscript works added to the Oriental Manuscripts Library, the greater number were Sanskrit works and there are now more than 14,000 Sanskrit works in the library. There has been an increase in the number of visitors and in the number of books consulted.

98. The total number of newspapers and periodicals published during the year rose slightly. There was an increase in the number dealing with current politics. The tone of the press was generally loyal and moderate. No newspaper or periodical was called upon to furnish security under the Press Act, and action under section 12 (1) of the Act was taken in respect of only one Tamil newspaper published at Karikal.

Periodicals (1911). *Part II, para. 844.*

99. The number of books and periodicals registered during the year continued to rise and of the number registered a little more than 11 per cent. were educational in their aim. As usual, the largest number of publications dealt with religion.

Registration of Books (1911). *Part II, para. 845.*

100. As usual the Museum attracted a large number of visitors, though the figures show a decrease as compared with the high figures of the previous years. Among the more noteworthy additions to the collections were an old wooden door from the ruined fort at Anjengo on the Travancore Coast and a set of copper plates from North Arcot adding largely to what is known of later Pallava history. The zoological acquisitions included a considerable number of species previously unrepresented in the collection. The Marine Aquarium continued to attract considerable popular interest.

Government Museum. *Part II, paras. 857 to 863.*

Marine Aquarium.

101. The number of observatories under the control of the Meteorologist, Madras, was the same as in the previous year. The chief work of the office consisted of the publication of the daily weather report and the rainfall returns.

Meteorology. *Part II, paras. 864 to 866.*

102. At the Madras Observatory observations are mainly confined to those necessary for maintaining an accurate time service and this work was efficiently performed throughout the year. The Kodaikanal Observatory is devoted mainly to solar work but complete meteorological, magnetical and seismometric records are also maintained while general astronomical observations are made when matters of special interest are involved. The year was less favourable for solar work than usual.

Astronomy. *Part II, para. 867.*

VIII.—ARCHÆOLOGY.

103. The conservation of ancient monuments received the attention of both the Superintendent and the Additional Superintendent. Two monuments were declared "protected", over a hundred places were inspected and nearly four hundred photographs were added to the collection of the department. Investigation was also made in respect of the treasure trove cases that were brought to the notice of the department. No excavation work was conducted during the year. His Excellency Lord Carmichael, Governor of Madras, and Dr. J. Ph. Vogel, the Acting Director-General of Archæology in India, visited the office in the course of the year.

Archæology. *Part II, paras. 868 to 870.*

104. Four hundred and sixty-five inscriptions, of which about 70 from Mysore were copied in duplicate, were collected during the year. Tentative transcripts of almost all the inscriptions (excluding those of Mysore) were prepared. In addition to the preparation of articles for epigraphical publications, a good deal of work was done in the examination of copper-plates, coins and impressions

Epigraphy. *Part II, para. 871.*

of stone and other inscriptions. A set of copper-plates with ring and seal, valuable as records for the history of the later Pandya kings, was secured from Muvaraivenran in the Rāmnād district.

IX.—MISCELLANEOUS.

Ecclesiastical.
Part II, paras. 880 to 882.

105. At the close of the year there were in all 264 clerks in Holy Orders officiating under the licence of the Bishop of Madras. During the year one Indian was ordained deacon and one European and eight Indians were ordained priests by the Bishop of Madras, while the Bishop in Tinnevelly and Madura ordained two priests, both of whom were Indians. Three clergymen were licensed to officiate in the Diocese of Madras. One cemetery was consecrated in the Diocese of Madras.

Stationery.
Part II, paras. 883 to 885.

106. Under Stationery, there was a fall both in the value of stores received and in that of stores issued, the decrease being mainly due in the former case to heavy purchases made in 1910–1911 to provide for a six months' reserve of all country articles and in the latter to large advances of the paper required for forms made to the Government Press at the close of the previous year.

Government Press, Madras.
Part II, paras. 886 to 891.

107. The receipts of the Government Press were less than last year, while the expenditure was higher. Compared with the outturn in the previous year, which was abnormally large on account of work connected with the census and the revision of forms, there was a decrease in pages set and also in impressions, which raised the cost per unit.

District Presses.
Part II. para. 892.

108. There was a decrease in the value of the work done by District Presses. There was also a decrease in the charges and in the cash receipts, chiefly due to a decrease in job work.

Chemical Examiner's Department.
Part II, paras. 893 to 896.

109. The total number of cases investigated by the Chemical Examiner in 1911 rose considerably, the main activities of the department being engaged in the investigation of cases of suspected human and animal poisoning, stains and general analyses for miscellaneous purposes. Poison was detected in 51·37 per cent. of the cases of suspected human poisoning and in 72·07 per cent. of the cases of suspected animal poisoning. Of the 166 cases of suspected stains, blood and seminal stains were detected in 126 ; and 21 out of 23 cases were detected in the miscellaneous medico-legal section. The principal inorganic poisons employed were various compounds of arsenic and of mercury, and the organic poisons included aconite, alcohol, atropine, calotropis gigantea, cannabis indica, brucine, lal chitra, morphine, oleander, opium and strychnine. The principal miscellaneous articles examined were explosives, petroleum, turpentine and its substitutes, paints, calcium carbide, condensed milk, etc., for the Customs Department; sugar, flour, butter, preserved meat, etc., for the Commissariat Department; tallow, kerosine oil, cocoanut oil and nitric acid for the Military Department; brandy, butter, cement, cocaine, coke, condensed milk, dried blood, earth from incinerators, fish manure, ghee, inks, liquid fuel, oils, soils, tallow, tinctures, water and a variety of other articles for various Government departments, municipalities and private parties.

Charitable Institutions.
Part II, paras. 897 to 899.

110. There were 3,392 charitable institutions in the Presidency during the year under report with an income of over Rs. 14 lakhs. Two thousand three hundred and fourteen of these were maintained entirely by the general public and the rest were supported or aided by Government or local boards. The majority of these

institutions were intended for the use of travellers and in many of them food was provided in addition to accommodation. Six hundred and twelve were intended for exclusive use by Brahmans and bairagis and 316 for the relief of paupers. The average number of persons in receipt of relief was about one in every thousand of the population, while during the year over 13 million persons were aided at all the institutions.

Muhammadans in the Service of Government. *Part II, para. 900.*

111. Apart from appointments in the Public Works Department, the percentage of Government appointments held by Muhammadans was 14·49, a slight decrease on the figure for the preceding year. In the Public Works Department 1·93 per cent. of the appointments were held by Muhammadans. Most of the appointments held by them were in the lower grades of the various departments, by far the greater number being police constables on Rs. 8 to Rs. 12 a month. The proportion of Muhammadans to the total population of the Presidency according to the census of 1911 was 6·6.

PART II.

DEPARTMENTAL CHAPTERS, ETC.

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

PHYSICAL FEATURES OF THE COUNTRY, AREA, CLIMATE, AND CHIEF STAPLES.

Situation and boundaries of the Presidency.

1. The present Madras Presidency, or the Presidency of Fort St. George, occupies the southern portion of the peninsula from latitude 20° 18′ on the eastern coast and latitude 14° on the western coast to Cape Comorin in latitude 8° 4′; the longitude ranges from 74° 9′ to 85° 15′. The extreme length of the Presidency, from north-east to south-west, is about 950 miles and its extreme breadth about 450 miles. The coast-line commences on the north-east at the confines of the large salt lagoon called the Chilka Lake in the Bengal district of Cuttack, and gives a boundary successively to Ganjām, Vizagapatam, Gōdāvari, Kistna, Guntūr, Nellore, Madras, Chingleput, South Arcot, Tanjore, Rāmnād and Tinnevelly districts, and a small portion of Travancore State, about 1,250 miles of coast in all being washed by the Bay of Bengal, Palk's Strait, and the Gulf of Manār. The coast-line commences on the north-west at the village of Shirūr a few miles south of Bhatkal near the Honāwār estuary, the boundary between the Bombay district of North Canara and the Madras district of South Canara, and gives a boundary successively to South Canara and Malabar districts, Cochin and Travancore States and the district of Anjengo which lies within the limits of the Travancore State, this coast-line of about 450 miles being washed by the Arabian Sea. On every side but the north, the Presidency is washed by the open sea. The irregular northern boundary has been formed by accidents of history. On the extreme north-east is the newly-constituted Province of Behar and Orissa; next come the highlands of the Central Provinces; then across the greater part of the peninsula the Dominions of the Nizām of Haidarabad, separated from Madras by the Kistna river and its tributary the Tungabhadra; lastly, on the north-west by west, the districts of Dhārwār and North Canara in the Bombay Presidency. The following description leaves out of account the Mysore and Coorg territories, which geographically form as much a portion of the Presidency as do the tributary States of Travancore and Cochin on the south. The Amīni Divi and Laccadive Islands form for administrative purposes a part of the Madras Presidency, being attached to the districts of South Canara and Malabar respectively. Off the south-east lies the British colony of Ceylon, separated by a shallow strait across which runs the string of rocks and sandbanks known as "Adam's Bridge." The Madras Presidency or the Province subject to the Government of Madras comprises 26 districts, of which the City of Madras is one, and 5 Native States, viz., Sandūr, Banganapalle, Pudukkōttai, Cochin and Travancore. It has a total area of 142,330 square miles excluding the area occupied by the 5 States mentioned above.

Mountains.

2. From a physical point of view the Presidency may be roughly divided into three portions, the long and broad eastern coast, the shorter and narrower western coast, and the high tableland in the interior. These divisions are determined by the two great mountain ranges of the Eastern and Western Ghâts, which give the key to the configuration of all Southern India. The two chains extend along the opposite coasts, parallel to each other, or rather diverging, and leaving between them and the sea only a plain of forty or fifty miles in breadth. They rise in few places above 3,000 or 4,000 feet high; but are very rugged and steep, and the entrance

into the interior is only by very narrow and difficult passes. The name of ghât, being applied to these passes, has been gradually extended to the mountains themselves. The Eastern Ghâts, which lie entirely within this Presidency, form a continuation of the hill system of Chutia Nāgpur. They run in a south-westerly direction almost through the entire length of Madras, until they lose themselves in the Nīlgiris, and there meet the western range. Their average height is 1,500 feet, and for the most part they leave a broad expanse of low land between their base and the sea. Their line is pierced by the Gōdāvari, Kistna and Cauvery rivers, as well as by minor streams, so that they do not perform the part of a watershed. The Western Ghâts, on the other hand, which stretch southwards continuously along the shore of the Indian Ocean from the north of Bombay, possess all the characteristics of a mountain range. Rising steeply at a distance of 10 to 50 miles from the coast in the Madras districts, they catch the greater part of the rainfall of the monsoon. Some of their peaks attain an elevation of from 5,000 to 8,000 feet. Though steep and stony, the hills are not broken, but covered generally with a stratum of earth, sustaining stately forests, particularly of bamboo, which is found nowhere else in equal perfection. The interior, between these two chains, consists chiefly of successive tablelands supported by the opposite ghâts and by chains crossing from one to the other diversified also by single precipitous eminences, which are formed into almost impregnable hill forts. The most southerly central tableland, with an elevation of from 1,000 to 3,000 feet, includes the whole of Mysore and extends over several of the Madras districts. There are again in the south various minor hill systems. The Nīlgiris, which form the junction of the two main ranges, culminate in Dodabetta, at one time regarded as the highest peak in Southern India. There are also outlying spurs and masses of hills, of which the Shevaroys in Salem, the Ānamalais in Coimbatore, and the Palni Hills in Madura are the most important. At the Palghat gap the Western Ghâts fall to a height of 1,000 feet above sea level, by a break 25 miles wide through which runs the principal railroad of the south of India. They then resume their course at full level down to Cape Comorin, and immediately widen out into the highland tract that lies between Madura on the one side, and Malabar, Cochin and Travancore on the other; this highland is known as the Ānamalais in the Coimbatore district and the Palnis in Madura. The hill tract here mentioned, higher than the Nīlgiris in parts, and much more extensive, becomes narrower again opposite the Cumbum valley in Madura, and behind Tinnevelly becomes only a mountain range between the two coasts with a restricted area. The Ānaimudi mountain in the Ānamalai range is now known to be the highest in Southern India, its summit being 8,837 feet above the level of the sea.

Rivers.

3. The Ganges and the Indus in the north of India finally absorb all the waters which descend from the southern face of the Himālaya; and these flowing either eastward or westward over the vast plain of Central India, leave between them a large expanse of arid desert bordering on the Indus. All the other waters of India belong to what is called peninsular India. Beginning from the north, the first two that occur flow eastward into the Gulf of Cambay; the Narbada, parallel to the Vindhya chain, and fed by its streams; and the Taptī, which passes by Surat. There the chain of the Western Ghâts begins, whence all the other large rivers flow eastward into the Bay of Bengal. The principal of these are the Gōdāvari, the Kistna and the Cauvery; all sacred in the eyes of the Hindu, and truly valuable by their services to irrigation and commerce. These rivers have the same uniform features. They rise in the Western Ghâts, and run across the peninsula in a south-easterly direction. They drain rather than water the upper country through which they flow, and are comparatively valueless there either for navigation or irrigation. But they spread over alluvial deltas before they reach the sea, and at that stage become capable of being restrained and utilized by the engineer. The estimated basin area of the Gōdāvari is 112,000 square miles, and its length is 898 miles. The estimated basin area of the Kistna is 97,000 square miles, and its length is 800 miles. The estimated basin area of the Cauvery is 28,000 square miles, and its length is 472 miles. Each of these rivers has a large tributary system of its own. Other rivers on the east coast, of similar character but smaller dimensions, are the North and South Pennēr or Pinākini (the southern being called Ponnaiyār), the Pālār, the Vellār, the Vaigai and the Tambraparni. The area of country drained by rivers running westward is only the narrow strip of territory between the Western Ghâts and the sea. As a rule, the country slopes gradually from the eastern base of the

western mountain chain down to the Coromandel Coast, while the fall is sudden and precipitous on the western side of the mountains.

Lakes.

4. It is somewhat remarkable that in so large a region as India, with so many mountains and waters, there should scarcely be a lake. So-called lakes are the Chilka on the Coromandel Coast at the confines of this Presidency, and the Pulicat Lake on the same coast within the Presidency. But these are really mere salt marshes like the Mareotis or Menzaleh. Pulicat Lake, about 37 miles in length from north to south, forms a backwater which used to be more or less important for inland communication between Madras City and the northern districts. This lake is supposed to have been caused by the sea breaking in through the low sandy beach. On the western coast, the perpetual antagonism between the mountain torrents and the ocean has produced a remarkable series of backwaters or lagoons, which skirt the entire seaboard of Canara, Malabar and Travancore. The largest is the backwater of Cochin, which extends from north to south for a distance of 120 miles. These backwaters also are used for inland navigation. A projecting spur of the ghâts for a long time interrupted communication, but this has been tunnelled, and continuous water communication is provided by this means between Cochin and the capital of Travancore.

Climate.

5. The peculiar physical geography of the peninsula with a large mountain chain running from north to south along its western boundary, is of importance in regard to climate and the productions of the various portions of the country. The western hills have the effect of arresting the lower strata of rain clouds brought up from the Indian Ocean by the periodical winds of the south-west monsoon, and of causing excessive rain precipitation on the narrow strip of coast-line on the western side of the peninsula. Where the mountain range is of great height, as between Malabar and Coimbatore, the rain clouds are almost entirely diverted from the districts immediately below the mountains on the eastern side; and while the annual rainfall on the western side may be one hundred and fifty inches, not more than twenty-five inches are usually registered on the eastern side, immediately within the influence of the mountain ranges. Where the mountain chain is of lower elevation, the rain clouds pass over the hills, and rain is precipitated in uncertain and varying amount over the peninsula to the east of the Ghâts; but, except in the northern districts, where the rainy season approximates to that of Bengal, the heaviest rainfall of the southern portion of the eastern division of the peninsula occurs during the period of the north-east monsoon. During the continuance of this monsoon, the western ranges of mountains have a similar effect in arresting the rain clouds, so that at the season of the year when the Carnatic is visited by heavy rain, the western coast districts enjoy clear weather. The climate thus varies considerably in the different parts of the Presidency. The Nilgiri Hills enjoy the climate of the temperate zone, with a moderate rainfall, and a temperature rarely exceeding 80° F., and sometimes falling to freezing-point. On the Malabar coast, the south-west monsoon brings an excessive rainfall, reaching 150 inches in the year at certain places. The rain clouds hanging on the slope of the Western Ghâts sometimes obscure the sun for months at a time. Along the eastern coast and on the central tablelands the rainfall is comparatively low, but the heat of the summer months is excessive. At Masulipatam the thermometer frequently rises to above 110° F., in the shade, and to 170° in the sun. Observations extending over a period of eighty-five years give an average of 49·03 inches of rain in the year at Madras City; but this is considerably above the mean of the east coast generally. In the district of Bellary the average annual rainfall does not exceed 23 inches, of which 14 inches are brought by the south-west monsoon across the ghâts. The whole coast of the Bay of Bengal is liable to disastrous cyclones, which not only wreck the shipping in the roads, but have repeatedly overwhelmed the low-lying ports.

Productions.

6. To the physical barrier of the Western Ghâts must be attributed not only the vast differences of climate, but also those of the nature of the productions, in the eastern and western divisions of the peninsula. In the former division the uncertainty and capricious character of the rainfall has taught the cultivators of the soil the necessity of making provision for the storage of water for irrigation purposes, and innumerable tanks or reservoirs scattered throughout the country are the result. On the western side of the mountains, however, the necessity for such works has never arisen. There the periodical rains fall with great regularity as to time and quantity, and the earth produces so abundantly that, although in

certain exceptional years there may be partial failures of crops, absolute agricultural distress as a result of bad seasons is quite unknown. Only three of the twenty-five mufassal districts of the Madras Presidency lie within the influence of the never-failing rains of the south-west monsoon. In the remaining twenty-two districts nature demands the assistance of art in the collection, storage, and distribution of the rain-supply. In some of these twenty-two districts, however, as in the northern coast area, the periodical rains fall more regularly than in others, thus giving them an advantage. In several of these also the rivers running eastward, swollen by the south-west monsoon rains, form an additional source of irrigation. The chief staples of the Presidency are rice, cholam (a kind of maize), cumbu (a kind of millet), ragi and varagu amongst food-grains; gingelly amongst oil-seeds; and chillies, tobacco, sugar-cane, plantains and betel-leaf amongst garden crops. Cotton, which may be regarded as a special crop, has a cultivation almost equalling that of ragi. The trees most grown for their fruits are cocoanut, areca-nut, jack, tamarind and mango. Rice is a very important crop in all the districts of the Presidency along the East and West Coasts and in North Arcot and Trichinopoly. It accounts, on the average, for more than a fourth of the area under crop and produces a much heavier outturn, area for area, than most other grains. Cholam, of which there are several varieties grown on different soils and at different seasons, is chiefly raised in Kistna, Guntūr, Kurnool, Bellary, Anantapur, Cuddapah, Nellore, Coimbatore, Trichinopoly and Madura districts. Cumbu is a very important crop in Guntūr, Salem, Coimbatore and Trichinopoly. Ragi is an important crop in Ganjām, Vizagapatam, North Arcot, Salem and Coimbatore. Cocoanut palms flourish most luxuriantly on the banks of the estuaries and backwaters or salt water lagoons of the western districts of Malabar and Canara, and areca-nut palms in the valleys intersecting the lower slopes of the Western Ghâts.

The West Coast.

7. When the Konkan territories in Bombay are left behind to the north, all that ever constituted part of the Moghul empire, or at least was regularly apportioned among its provinces, has been quitted. The south of India may be said to reach from this point to Cape Comorin, and to begin with the maritime tract of Malabar. The name of Malabar properly belongs to a kingdom, of which the capital, Calicut, was found by the first Portuguese navigators to be the seat of a considerable dominion under a sovereign called the Zamorin. Under a misconception of the extent of the country the name Malabar was extended to neighbouring countries, and has even been applied loosely to all the western coast of the peninsula as far as the Gulf of Cambay. Considered as the coast reaching from the Konkan to Cape Comorin, it forms a region 500 miles in length, and 30 or 40 miles in breadth, interposed between the Indian Ocean and the almost continuous chain of the Western Ghâts. This position supplies it with copious moisture. Its surface, rugged, rocky and irregular, may be rendered highly productive with careful cultivation, which is generally bestowed. It yields very large crops of rice, which are exported to Bombay and the northern coasts. But the ancient staple of its European commerce is pepper, produced in greater abundance and perfection than in any other part of the globe. It produces also very copiously the noted Indian luxury, the betel-leaf and areca-nut; likewise ginger, cardamoms, and several other spices. Coffee now forms an important export to European countries. The upper districts abound with fine timber, particularly teak, pre-eminently valuable for ship-building; also sandal, sapan, and other dyeing and ornamental woods. The region does not contain any fine or flourishing manufactures, unless the modern industry in machine-made earthen tiles be reckoned as such; but its grain, timber and spices are exchanged for the fine cottons of Gujarat. Social life throughout Malabar presents a very remarkable aspect. The original structure of Hindu society has not been altered by foreign conquests, but it exhibits within itself some forms decidedly in contrast with those which are found elsewhere. The distinctions of caste are carried to an unusual pitch. Before the enforcement of English law, if a cultivator (Tiyyan) or fisherman (Mukkava) touched one of the Nāyars or military class, the Nāyar was considered justified in killing the person so touching him on the spot. The Paraiya class in Malabar were till lately little less than slaves. A class called Nāyadis are excluded from all human intercourse, and forced to wander in unfrequented places, without means of support, except the alms of passengers. The Nāyars, though classed as Sūdras in the Hindu system, rank immediately under the Brahmans, the intermediate classes being here wanting. Inheritance among them is under the Marumakkattayam law and follows the female line. Another striking

peculiarity on the Malabar coast consists in the early colonies of Christians and Jews, which still form a considerable part of its population. So numerous are the former, as to give Malabar in many quarters the appearance of a Christian country.* They derive from a very well-known tradition the title of Christians of St. Thomas; their origin does not in reality appear to be much later than the apostolic age. Their original form of worship was not in accordance with the tenets of the Catholic church. The Portuguese, who at an early period became masters of this coast, considering such worship as heresy, compelled them to conform. The Malabar Christians could not, however, be induced to hear the service read in Latin; the Portuguese therefore conceded this point, and allowed the use of the Syriac. A species of Syro-Roman church was thus formed. The Jews of Malabar are divided into 'white' and 'black,' forming quite distinct classes; the white consider the other as comparatively low and impure. In A.D. 490 they obtained the gift of the city of Cranganore; but having incurred the hostility of a neighbouring raja this settlement was broken up and dispersed. The black Jews have been supposed by some to be Hindu converts; but it is possible that they were an earlier race of Jews from Palestine. Both tribes possess Hebrew manuscripts of the Old Testament, which appear to be preserved in a state of tolerable purity.

South Canara.

8. In surveying this coast in somewhat greater detail, the first tract met is Canara, which extends along the sea about 200 miles. The northern part, now in the Bombay territory, is very hilly, and produces chiefly teakwood; but the southern, a portion of which is called by the natives Tuluva, is well cultivated and exports large quantities of rice. Hindus of the peculiar sect called the Jains are found in considerable numbers in this country. There are also a considerable number of Christians; but the sea-coast is mostly occupied by a class of Muhammadans called Mappillas, apparently emigrants from Arabia. Through their means Haidar and Tipu were complete masters of Canara, and the latter carried on a violent persecution against the professors of all other religions. After the fall of Tipu, however, in 1799, Canara was annexed to the British dominions and toleration was restored. South Canara alone now belongs to this Presidency. The principal city of South Canara is Mangalore, long a flourishing emporium. It suffered in the war between the Mysore sovereigns and the British Government. Being taken by the British in 1783, it was defended with extraordinary valour against the whole force of Tipu. In the following year it was surrendered by treaty to that ruler, who then dismantled the fortifications. Since coming under British dominion Mangalore has flourished, and carries on a very large export of rice. It is situated on a backwater forming a common estuary to two rivers, one of which is to its north and the other to its south. The port will not admit vessels drawing more than ten feet of water; but the anchorage at the mouth of the river is good.

Malabar.

9. Proceeding southwards, the next district is that of Malabar, which has a sea-board of 150 miles, and contains upwards of 3,015,000 inhabitants. The soil immediately along the shore is poor and sandy; but in the interior it consists of hills, the sides of which are formed into terraces, with fertile valleys interposed. Pepper, abundantly raised in the hill-forests of this country, forms the staple of a very extensive foreign trade. Calicut, which first gave to Da Gama an idea of the splendour of Indian cities, was the residence of the Zamorin, whose empire then extended widely over Malabar. Its power was materially broken by unsuccessful contests with the Portuguese, and towards the close of the last century was finally destroyed by the invasions of Haidar and Tipu. In the struggle which terminated in the downfall of the latter Britain derived some aid from the native chiefs, who, in return, were invested with the internal jurisdiction of the country subject to the payment of a regular tribute. Between powers placed in so delicate a relation dissensions soon arose; the conflict terminated in favour of the British, who assumed the uncontrolled dominion of the country, its territory being annexed to this Presidency. The Zamorin is now a stipendiary of the Madras Government. Calicut, the once important capital of Malabar, was entirely destroyed by Tipu; but, as soon as British ascendency permitted, the inhabitants animated by that local attachment which is strong in India hastened to return. It is now a large place with an improving trade. The most remarkable modern city, however, is Cannanore, formerly the seat of a female ruler called the Bībī, and from its almost

* According to the latest figures, the Christians in Malabar district number 53,015, while the other west coast divisions are populated as follows:—South Canara (96,029), Cochin (233,092) and Travancore (903,868).

impregnable position regarded as the main hold of the Mappillas or Muhammadans of Malabar. The Bībī was till recently allowed to administer Cannanore and the country in its immediate vicinity. She carried on also considerable mercantile transactions with Bengal and Arabia, and included in her sovereignty part of the Laccadives, an archipelago of low coral islets facing the coast of Malabar at the distance of from 75 to 150 miles. They, however, produce nothing but coir yarn and plantains, and are inhabited by poor Mappilla fishermen.

Cochin.

10. South of Malabar proper is the small territory of Cochin, which presents the same general aspect as the rest of the coast, and particularly abounds in teak timber. Christian colonies are very numerous in this territory. Cochin, the capital, was the first point at which the Portuguese were allowed to erect a fort. In 1663 it was taken by the Dutch, and was rendered by them one of the most flourishing cities of India. The raja has maintained his independence better than most Hindu princes. He was merely tributary to Tipu, and under British rule he still controls the internal affairs of his State, though under payment of tribute. Cochin still enjoys a considerable trade. Ten miles to the north is Cranganore, which the Portuguese have made the seat of a Bishop's see.

Travancore.

11. The extended line of coast from Cochin to Cape Comorin is occupied by the dominions of the Maharaja of Travancore. They possess all the advantages peculiar to the Malabar Coast. The inland districts, in particular, are remarkable for fertility and beauty. They exhibit a varied scene, consisting of hills clothed with lofty forests, and of winding streams with valleys clad in perpetual verdure. The woods are perfumed with numberless aromatic plants. Besides the staple article of pepper, Travancore yields ginger, turmeric and inferior species of nutmeg and cinnamon. The Travancore Maharaja, like the Cochin Raja, conducts the internal affairs of his dominions, subject to the advice of the British representative under a treaty of 1805. Travancore, the ancient capital, was situated somewhat up the country in a soil of white sand; but it is much decayed since the Maharaja removed to Padmanābhapuram and subsequently to a new palace built on the European model at Trivandrum. Alleppey, Quilon and Kolāchel afford convenient havens for trade, though the strong currents which run along the coast render navigation difficult.

Cape Comorin.

12. At the extreme point of the territory of Travancore is situated Cape Comorin, the most southern point of India. A few miles from this stands the southernmost scarp of the Western Ghâts, a bold and commanding feature, which presents to the ocean a lofty hill covered with the most brilliant verdure. The rocks scattered along the shore of the cape render it necessary for the navigator to keep at a distance.

The Carnatic.

13. After turning Cape Comorin the extensive territory is reached to which Europeans have given the name of the Carnatic. It stretches about 500 miles along the coast, stopping somewhat short of the great natural boundary of the Kistna. It is divided into two parts by the chain of the Eastern Ghâts, running like the Western Ghâts parallel to the coast. One of these divisions is called the Carnatic above, and the other the Carnatic below, the Ghâts; but the former is better known under the title of Mysore, and the territory on the coast will be here considered the Carnatic proper. It is called also the Coromandel Coast; and though in its general structure similar to Malabar presents some marked differences. The mountains are distant from the sea fifty, seventy, or a hundred miles; and, instead of being clothed with vast and majestic woods, are in most places naked and rocky. The region is watered by several great rivers, rising in the Western Ghâts, and running across the whole peninsula, among which the Cauvery stands pre-eminent. Upon the whole, however, instead of numberless torrents dashing down the sides of the hills, and requiring only to be confined and guided, this tract contains large arid plains, to which the industrious husbandman can with difficulty by canals and tanks convey the necessary moisture. The ghâts also from their great altitude intercept the heavy rains which the monsoon brings on the western coast; and there are only occasional showers, from May to June, to fertilize the ground and cool the intensity of the heat. Hence the Carnatic, in seasons of drought, is subject to severer famines than any other part of India. Yet, though there are many barren tracts, the country, on the whole, is highly cultivated and very productive. The population of the Carnatic is essentially Hindu. The tide of Muhammadan conquest did not reach it before the fourteenth century; nor was the subjection

nearly complete until the reign of Aurangzeb. A race of Moghul viceroys was then established at Arcot, who on the fall of the empire set up an independent power. Pressed however by the overwhelming force of the Rajas of Mysore, they were forced to ask for British aid. The Company readily interposed, and after a long and severe struggle subverted the throne of Haidar and Tipu. The Nawab, however, was unable to maintain his position. On the death of the reigning Nawab in 1801, his successor was made to sign a treaty by which the sovereignty of all his territories was transferred to the Company: and there were reserved to himself only from two to three lakhs of pagodas, and a portion of household lands. The country was then divided into eight districts or collectorates administered by British officers. Arcot and its immediate vicinity is largely peopled by Muhammadans. The rest of the population is Hindu, and the customs and religion of the race have been preserved here in unusual purity. The pagodas are extremely numerous, and rival in splendour those of the sacred cities of Benares and Allahabad. The Brahmans, not generally oppressed as elsewhere under Muhammadan ascendency, had entrusted to them by that government most of the civil employments connected with the management of the revenue in the State. Another class, almost peculiar to the southern part of the country, was formerly that of the 'pālegārs,' originally district officers of the old Nayak Government. They took advantage of the periods of its weakness, and erected castles from which like the baronial chiefs of Europe in the feudal ages they plundered and oppressed the surrounding country. The British Government were often obliged to purchase their orderly behaviour by giving them an independent power and jurisdiction. There is no class whose subjection proved so expensive to Great Britain. The Carnatic is much more of a manufacturing country than Malabar; yet it does not produce those fine fabrics which distinguish the Northern Circars. Piece-goods, blue cloths, chintzes, etc., all of a coarser kind, are its principal products.

The City of Madras.

14. A detailed survey of the Carnatic may begin with Madras, now its capital, and that of the British possessions on the eastern coast. The choice of a capital, as in many other countries, has not been so happy as that made by the French; Pondicherry being in every way a naturally finer and more convenient station. Madras for long had no harbour, but only an open roadstead scoured by a strong current, and suffered in consequence commercial disadvantages which its present extensive harbour is now successfully removing. On the beach outside the harbour breaks so strong and continual a surf, that only a peculiar species of large light boats, the thin planks of which are sewed together with the tough grass of the country, can by the dexterous management of the natives be rowed across it. For minor communications with the shipping and for deep sea-fishing the natives of the coast employ what is called a catamaran, consisting merely of two or three planks fastened together, with which they encounter the roughest seas with wonderful address, regaining it by swimming when swept off by the waves. Fort St. George, placed at a small distance from the sea, was once regarded as a strong and handsome fortress, though not on so great a scale as Fort William at Calcutta; but more advantageously situated however, and defensible by a smaller number of men. European Madras is for the most part an assemblage of country houses situated in the midst of gardens and scattered over an extent of several miles. The houses are light and elegant, having columns covered with a fine composition of shell limestone called chunam. The hand of art has covered with verdure a somewhat arid soil. Georgetown is extensive, and its minarets and pagodas, mixed with trees and gardens, are striking from a distance; but the interior is poor.

Chingleput.

15. In the vicinity of Madras is the district of Chingleput, originally obtained as a jaghir from the Moghul, and still kept up as a distinct collectorship. Though the soil is generally dry, it is made by industry to yield tolerable crops of rice. Recent experiments on the capabilities of wells equipped with pumping machinery have done much to extend irrigation and the production of valuable crops such as sugarcane and plantains. About thirty-five miles to the south of Madras is Mahābalipur, or the city of the Great Bali, called also the Seven Pagodas. It consists of a range of sculptured edifices representing the exploits of Bali, Krishna, and other chiefs celebrated in the Mahābhārata. It is sacred to Vishnu, a colossal image of whom is found in the principal temple. The monuments, though not on the same gigantic scale as in some other parts of India, are well executed. In the

interior of the country is the hill temple of Tirupati, one of the most crowded scenes of Hindu pilgrimage.

Pondicherry.

16. Proceeding southwards Pondicherry is reached, the seat of French Empire in India. This empire, founded in 1749 by Dupleix, presented for some time a brilliant aspect, and strengthened by native alliances threatened to subvert the foundations of the British power in the East. Towards the close of the war of 1756 Pondicherry fell into the hands of the British; and, though restored by subsequent treaties, never on the renewal of war made any effectual resistance. Pondicherry was raised by the French from a village to be the handsomest European city in India. It contains many fine houses in the European style; and the high culture of the vicinity, the numerous canals crossed by neatly constructed bridges, the roads planted with trees and partly adorned with statues, give to the surrounding district the appearance of a great garden. The inhabitants have suffered much by repeated hostilities, and being unfavourably situated for trade have been unable entirely to retrieve their affairs. In trade Pondicherry was at one time surpassed by Cuddalore, a well-built town at the mouth of a considerable river. In war Cuddalore has followed the fortunes of Pondicherry, though its capture in 1783 by the British was not effected without very great loss on their part.

Tanjore.

17. The Kingdom of Tanjore was formerly an important territory, consisting of the delta of the Cauvery. The Hindus attach to its stream a peculiarly sacred character. At Trichinopoly, about 100 miles above the sea, it separates into two great branches, one retaining the original name and another being called the Coleroon. Numerous channels derived from these convert the region into a delta, unsurpassed by any part of Egypt or Bengal in culture and fertility. Art has been industriously employed to improve these natural advantages. The chief produce consists of rice, grain and cocoanuts, which are largely exported. The population introduced by Moghul conquest has never reached Tanjore, and almost the only Muhammadans consist of a few refugees from Arabia. This country therefore has retained almost entire the ancient religion, constitution and manners of India. It is particularly distinguished by the splendour of its pagodas and other edifices destined to religious worship. Tanjore was governed by an independent raja until 1799, when the British caused him to resign the administration, and accept a revenue of a lakh of pagodas, or $3\frac{1}{2}$ lakhs of rupees, with one-fifth of the net revenue of the country. He was also permitted, in time of peace only, to keep possession of the town and fortress of Tanjore. The town of Tanjore is of great antiquity, but since the death of the last raja, its splendour has waned. Its pagoda, rising from the ground by twelve successive stages, is greatly celebrated and is considered the finest specimen of that species of structure existing in India. The place is six miles in circumference, and contains two large and strong forts, the smallest of which is about a mile in circumference, surrounded with a broad and deep ditch cut in the solid rock. In one of these forts is the pagoda, and in the other the palace of the raja.

Trichinopoly.

18. Trichinopoly is a large and strong city, farther up the Cauvery, and distinguished as having been the residence of Muhammad Ali and his son, who under British protection reigned over the Carnatic. The siege of Trichinopoly in 1755 is celebrated in Indian history for the gallant defence made by British officers against the French and their native allies, which terminated in a great part of the former being obliged to surrender. Opposite to Trichinopoly is the large island of Srīrangam formed by the two branches of the river. It contains a pagoda pre-eminent in magnitude and sanctity, being about four miles in circumference, and surrounded by seven successive enclosures. The innermost shrine has never been violated by any hostile power. It is visited by crowds of penitents from all parts of Hindustan, who bestow gifts in return for the pardon of their sins.

19. Among the sea-ports of this region special mention may be made of Negapatam at the mouth of the Cauvery, once the chief factory of the Dutch on this coast, and made by them a strong and commercial place, and now one of the important ports on the east coast. At the mouth of one of the deltaic branches is Tranquebar, which the prudent conduct of the Danish Government converted from a small village to a thriving mart of trade. It is also the seat of an active mission, to which the public is indebted for some important memoirs relative to India. Dēvakōttai, at the mouth of the Coleroon, was once a considerable British factory, and the first place in this neighbourhood where the British obtained a footing.

Madura, Rāmnād and Tinnevelly.

20. The districts of Madura, Rāmnād and Tinnevelly, added to Travançore on the opposite coast, constitute the extreme south of India. They are inferior to Tanjore in natural fertility, and, as some consider, in cultivation. They are less copiously watered, and a not inconsiderable part of their surface is still covered with jungle, formerly the retreat of pālegārs, whose incursions disturbed the pursuits of industry. Cotton forms the staple product, particularly of Tinnevelly; and a considerable quantity of coarse manufactures is transmitted to Madras. In the situation and structure of Madura and Trichinopoly strength was mainly studied; but since the country has attained a more settled state, their fortifications have fallen into decay. Madura, a very ancient city, is regarded by the Hindus as peculiarly sacred. It has a pagoda or temple much more than commensurate with the greatness of the city and one of the most splendid in Southern India. Its population is now exceeded by no town in the Presidency except Madras.

Northern Carnatic.

21. The northern part of the Carnatic still remains to be mentioned. It is generally inferior to the southern, and yields no remarkable product, either of land or manufacture. Arcot, nearly in a direct line inland from Madras, was raised to high importance by the Moghul government, who, attracted by its salubrity, made it their capital. It is situated, however, in a barren country, and is surrounded by naked granite hills. Pulicat, close to the sea and with a port, after enjoying for a long time high prosperity as the chief seat of Dutch commerce on the Coromandel Coast under the name of Geldria, has since it came under the power of the British declined to the position of an inconsiderable village. There was formerly trade here with Penang. Nellore on the large river Pennēr formerly exported blue chintzes for the use of the Negroes on West Indian plantations, but this trade has ceased. There is an anicut across the river close to the town, which has supplied the delta south of the river with irrigation for many years; and another anicut constructed at Sangam, 20 miles west of Nellore, performs the same service for the delta north of the river. The whole of this coast is engaged in the salt industry. Mica-mining in Nellore district has developed in recent years.

Salem, Coimbatore and the Nilgiris.

22. Salem district includes a northern and eastern portion once called the Bāramahal or twelve estates, and a remainder consisting of country lying on and below the Mysore plateau. The East India Company sought to convert the town of Salem into a manufacturing centre, and a large weaving industry remains to this day. The climate of Salem town is not considered healthy, being liable to sudden alternations of heat and cold ranging up to 25°. This district was the principal seat of the manufacture of Indian steel or wootz. The ore is exposed and needs no mining. The antiquity of the process of manufacture is no less astonishing than its ingenuity, for its theory is extremely erudite, and in its discovery there seems but little room for the agency of chance. There is no evidence that any nation of antiquity except the Hindus were acquainted with the art of manufacturing steel. The forests of the district cover a fourth of its area, and their development for the purposes of fuel may make this into an iron-producing country. Above the town of Salem tower the Shevaroy Hills. The name of the old Konga kingdom, which disappeared from history eight or nine centuries before the Christian era, survives in Kāngayam in the adjoining Coimbatore district. The fauna of Southern India abound in this part of the country. The town of Coimbatore lies high and is a favourite station with Europeans. On the western confines of this district lie the Nīlgiri Hills, the largest hill-plateau in India that has been permanently occupied by Europeans. There are several tea and coffee plantations on the plateau and cinchona, eucalyptus and blue-gum trees are grown there. Ootacamund in the Nīlgiris is the head-quarters of the Madras Government during the hot weather.

The Northern Circars.

23. The old province of Orissa to the east of Gondwāna in the Central Indian tableland occupied the whole sea-coast of the southern peninsula from the Carnatic to Bengal. The interior of the country, traversed by a portion of the great chain of the Ghâts, is still more rugged than the tableland to the west of it; it is covered with jungle and infested by hill fever. Various rude tribes have from time immemorial inhabited these wild recesses. They rendered themselves formidable to the Mahrattas; but the influence of British law has converted them into more or less peaceable subjects. The three great rivers, the Mahānadī, Gōdāvari and Kistna, discharge themselves into the sea; the first towards the northern, and the two latter at the southern extremity of this country. The

tract, which has been known as the Circars, and which is the only part of Orissa now assigned to Madras, comprises that southern portion of it, which was never securely held by the original Hindu kingdom. The littoral of the Northern Circars is one of the most valuable districts in Hindustān, equal to the Carnatic in fertility, and formerly at least superior to it in manufacturing industry. It is remarkable also as being the first territory of any considerable extent which came under the dominion of the East India Company. In 1759 the French having been driven from Masulipatam, Lord Clive obtained from the Moghul the grant of the territory; and the Nizam, though then in actual possession, was not in a position to dispute the transaction. The internal government has not been materially altered, the villages being ruled according to their ancient institutions; but the power of the zamindars, the principal of whom at the first occupation could assemble 41,000 troops, has been greatly broken. Calicos and chintzes were once the staple manufacture, the finest being produced in the delta of the Gōdāvari. These manufactures were exported to Europe and various parts of the East, but particularly to Persia, where the demand for them was most extensive. Modern competition, however, on the part of Bombay and England has gone far to destroy the industries. The principal exports now are in natural products. Manganese mines in Vizagapatam district have been recently developed; graphite is found in Gōdāvari district. The Circars were, under the Muhammadan government, five in number: Guntūr or Murtazānagar, Kondapalle or Mustafānagar, Ellore, Rajahmundry and Chicacole; with the coast strip of Masulipatam added. But this nomenclature has been altered by the modern distribution of revenue districts. The important trade of this tract used to centre almost entirely in Masulipatam, a large sea-port with the best harbour in the whole coast from Cape Comorin. More than half of its exports were to Bussora, the rest chiefly to Madras, which it supplied with a considerable quantity of grain. This place, however, has in its turn lost its natural advantages, and has been replaced by Cocanada, which has canal communication with the deltas of the Gōdāvari and Kistna rivers.

The Ceded Districts.

24. The Ceded Districts will complete the account of the Presidency. They form the Bālāghāt or highlands of the old Hindu Vijayanagar kingdom, as opposed to the Payan Ghât or Talaghāt or lowlands of the same, already described above under the title of Carnatic. In the concluding years of the eighteenth century French alternated with British troops in the support of the Nizam at his capital. But in 1798 the Earl of Mornington finally established there a British force, and in 1800 at the conclusion of the third Mysore war the most southerly of the Nizam's territories lying below the Tungabhadra river were ceded to the British as payment for that force then largely increased. Thus a large tract of country was added to the British possessions in the south, which carried their power from the coast to the centre of the peninsula. The Native State of Mysore was at the same time encircled. The character of this country does not differ materially from that of the Deccan plateau. Bellary the most westerly of the provinces, and including at that time what are now Anantapur and Kurnool districts, is throughout a highland; the most elevated part being to the west where the surface rises towards the culminating range of the Western Ghâts, and to the south where it rises to the tableland of Mysore. Towards the centre of the country the plateau presents a monotonous and almost treeless extent. Water is scarce, and fodder difficult to procure. The present district of Kurnool lies to the east of Bellary. The central portion consists of a valley of black-cotton soil. Anantapur, south-east of Bellary, was once the western limit of the real Canarese country. The Cuddapah district is the fourth division of the Ceded Districts, and its most mountainous part. The town of Cuddapah is situated in a depression, and the northern part of the district is much lower than the southern. The climate of the principal town itself is marked during the hot season by great heat during the day and oppressive closeness and stagnation of air during the night.

POLITICAL.

HISTORICAL SUMMARY.

Introduction.

25. In any enumeration which may be made of the literature proper to this country, one capital defect must be obvious, that history finds in it no place. The legends of Indian mythology may be plausibly supposed to have a foundation in the story of some celebrated early kings or conquerors, but it is scarcely possible through the mist of fable even to conjecture anything respecting the real existence of these personages or the events connected with them. The Grecian Iliad and and Odyssey are in comparison with Hindu legends plain and authentic chronicles. Indian chronology, like that of the Greeks, is divided into four ages, of which three are fabulous, and the first consists of nearly 2,000,000 years. Antiquarian research is only by degrees finding means of supplementing the deficiency caused by the absence of materials constructed or collected by usual historic methods.

Periods preceding known Dravidian Dynasties.

26. The history proper of the south of India may be held to begin with the Hindu dynasties formed by a more or less intimate mixture of the Aryan and Dravidian systems of government. But, prior to that, three stages of historical knowledge are recognizable; first as to such aboriginal period as there may have been prior to the Dravidian; secondly as to the Dravidian period proper, and thirdly as to the period when the Aryans had begun to impose their religion and customs upon the Dravidians.

Aborigines.

27. Human remains and traces have been found on the East Coast of an age which is indeterminate but apparently beyond the ordinary calculations of history. They are material here in so far as they are connected with the question whether there was or was not a population of Southern India earlier than the Dravidian. All enquiries connected with populations show the impossibility of assuming any anterior limit in such series. At the same time there is for practical purposes no evidence of any earlier population in the present instance. In this part of the world, as in others, antiquarian remains show the existence of peoples who used successively implements of unwrought stone, of wrought stone, and of metal fashioned in the most primitive manner. These tribes have also left cairns and stone circles indicating burial places. It has been usual to set these down as earlier than Dravidian. But the hill Kurumbas of the Palmaner plateau, who are only a detached portion of the oldest known Tamilian population, erect dolmens to this day. The sepulchral urns of Tinnevelly may be earlier than Dravidian, or they may be Dravidian. It has been alleged that the Kolarian races of the north-eastern part of the peninsula, whom various considerations show to be in a measure more primitive than the Dravidian races, preceded them in Southern India. This is not demonstrable. According to some theories the wild tribes of Southern India itself are physiologically of an earlier type than the Dravidian tribes. The evidence of the grammatical structure of language is to be relied on as a clearly distinctive mark of a population, but from this point of view it appears that there are more signs of the great lapse of time than of previous populations. The grammar of the south of India is Dravidian. The hill, forest, and paraiya tribes use the Dravidian forms of grammar and inflection. The vocabulary alone of the rude dialects may yet be found to give traces of ancient pre-Dravidian languages. The worship of serpents, and that mysterious form of combined worship addressed to trees and serpents together, pertains perhaps rather to Mongolian races than to the Dravidian races proper. It has undoubtedly prevailed in Southern India, and, if this has been so generally and not sporadically, it is an argument for the existence of populations prior to the Dravidian. The worship of serpents, living and in effigy, still survives. The habits and customs of the people exhibit that most remarkable breach between one section of the population and another which is expressed by the terms "Hindu" and "out-caste." This may be a religious or caste distinction effected by Brahmanical influence. It may indicate an essential

difference of race. The social breach is so wide as to furnish the strongest argument that exists for regarding certain tribes as earlier than the Dravidian in their origin. Polyandry, the most noticeable social peculiarity of Southern India, belongs as much to the Dravidians as to any other race. As regards native chronology it need only be said that the local traditions of the oldest portion of Chera Mandalam or South Travancore make the Dravidian dynasty of that country coeval with the origin of the world. The arguments have been stated for considering that there was a population earlier than, and distinct from, the Dravidians. It will be seen that history is almost silent on the subject.

Dravidians.

28. The theory that the Dravidians came to India from without, passing over the north-west boundary and through Sindh, does not rest on certain evidence. This movement appears to have been the characteristic of much later races. If the Dravidians moved into India at all, they may have emigrated from the south or the east. As far as present evidence goes, however, they are indigenous to India, and perhaps specially indigenous to Southern India. The Dravidian terms indicating direction, which must be very primitive, are derived from the configuration of the southern peninsula. The east is கிழக்கு (kizhakku) or "down" and the west is மேற்கு (merku) or "up"; that is to say, the country sloping to the coast and the country rising to the Western Ghâts. The Dravidians may have been at first nomads in India. Numerous local traditions testify to minor migrations. The Greeks knew one small section of the race as σῶραι νομάδες still in their own day. The original strength of the language of the Dravidians is shown by the great persistence of its grammatical formations through all the vicissitudes of history. The early Dravidians perhaps had for religion a worship of the spirits of ancestors, coupled with that of hostile demoniac personages of other and various descriptions. When religious observances developed they appear to have taken the form of the sacrifice of living animals, and the peculiar rites of devil-priests. The fishermen of the south, dependent on the moon's phases for their operations, early developed a primitive lunar computation of time. The agriculturists of the plains observed the seasons and movements of the sun. The astronomy of the Dravidians thence arising was first lunar and then strictly solar-sidereal. The vocabulary and institutions of the people show that they had a highly developed practical astronomy before they were touched by Brahmanical influences, and their system still holds its ground in many respects. The Jovian cycle of five revolutions of Jupiter or sixty years, which regulates the chronology of the Tamilians, is no part of the Aryan system. The familiar period of twelve years for domestic events among the Tamils has the same derivation, and is similarly independent. The religious festivals which are proper to the Tamilians can be called fixed, varying only with the fluctuations between diurnal and solar time, and differing from the Hindu festivals which vary extensively under the lunar-sidereal system of the Indian Aryans. The Dravidians knew all the ordinary metals indigenous to the country. Spinning, weaving and dyeing were common arts. The Dravidians possessed considerable constructive, if not architectural, power. The Amaravati Stupa and the rock-cut temples at Mahabalipur may have been produced in later ages under Brahmanical or Buddhist influence, but they are a development of strictly indigenous art.

Aryans.

29. The date of the first settlement of the Aryans in Scuthern India is more obscure than that of the first arrival of Aryans in India. As far as is actually known from direct evidence the first Aryans who settled permanently in the south were hermits, who by civilizing the people round about them gradually opened a pathway for more effectual invasions. The most prominent name among these ascetics is that of Agastya, who is celebrated for the influence he acquired at the court of Kulasekhara, according to tradition an early Pandyan king. He is called the Tamizh Muni, or Tamilian sage. The mountain from which the Parni or Sanskrit Tamraparni takes its rise is still known as Agastya's hill. The Aryans abandoned their own language in Southern India in favour of the Dravidian languages, and at the outset at any rate modified to a great extent their own religion and customs. In Coorg there is no Brahman influence even to the present day. The ascendency of the Brahmans was brought about gradually and by the arts of peace; for if it had been effected by warlike means some traditions of the fact would have survived. There are however none such and all existing traditions, and the names by which the Brahmanical race is distinguished in

Tamil, viz. அய்யர், (ayyar) or 'fathers' and பார்ப்பார் (pārppār) or 'overseers,' * seem to point to power gained by means of administrative ability, rather than by violence. A large number of inscriptions in Brāhmī characters have been recently discovered in natural caverns on hills chiefly in the Madura and Tinnevelly districts. These are in a language which has not yet been deciphered; but show, at any rate, the Aryan influence, at least in script, prevalent in the second or third century B.C. It is not unlikely that the language of these records is strongly influenced by Dravidian, if not Dravidian itself.

Dravidian Dynasties.

30. The occupants of the south of India were, at the earliest period for which any records archæological or otherwise can be found, Dravidians ruled over by kings taken from the same stock as themselves. They were, however, to an extent which cannot be determined, under the influence of Aryan settlers. It is almost certain that the only representatives of the Aryans were Brahmans; these were probably located in the larger towns alone and came little into contact with the agricultural population; the Sanskrit names given to places existed probably in the Sanskrit writings only of the settlers. And the same may be said without hesitation of the Sanskrit names given to the Dravidian rulers, and derived for the most part from the Solar, Lunar, and Agnikula families of the north. The tribes and dynasties of the Dravidians were extremely numerous. The Tamil country in the extreme south is traditionally divided between the three principal kingdoms or mandalams of Pandya, Chola and Chera. The West Coast developed an independence. On the north-east, the kings of Kalinga at one time ruled over the entire line of seaboard from the Gōdāvari to the Ganges. The eastern coast was occupied by a Pallava kingdom, which was perhaps almost as ancient as the southern kingdoms. But to these principal kingdoms might be added a great number of smaller kingdoms. The inhabitants of the three mandalams spoke the ancient Tamil language, and employed a written character known now by the name of Vattezhuttu; the origin of this is doubtful. The most celebrated ancient Tamil literary works, such as the Tolkappiyam and the Kurral, were probably written originally in this character. The West Coast nations spoke Malayalam, the North-east Coast nations spoke Telugu, and the inhabitants of the South Deccan spoke Canarese. These are forms of the Dravidian language later than Tamil.

The Pandya Kingdom.

31. The Pandya kingdom as called by the Sanskrit writers, or the Pandi kingdom as called by the natives of the country, was the most prominent dynasty in the extreme south when the Aryans first made acquaintance with it. It is mentioned by the name 'Pānda,' in Asoka's inscriptions, which are dated 260 B.C., together with the Cholas under the name of Chodas and the Chera ruler under the name of Ketalaputra; but only the names are enumerated. Megasthenes, who was sent in 302 B.C. as ambassador from the court of Seleucus Nicator of Babylon, *302 B.C.* to Chandragupta, king of Pataliputra, in connection with the affairs of the Indian empire, recorded the existence of a kingdom called *παvδαία* in the extreme south. Strabo in 20 A.D. gives an account of an embassy sent by the Pandyan ruler, probably from the West Coast, to the Emperor Augustus. Golden aurei of that Emperor's coinage have been found on the West Coast. Pliny later in A.D. 77 *77 A.D.* calls these people the Pandae, and says that they were the only race in India ruled by women. Speaking of a portion of the West Coast, he states that it was then under the rule of the *Βασιλεὺς παvδίων* "far from his inland emporium at Modoura." The Periplus of the Erythræan sea about 80 A.D. makes a similar remark, *80 A.D.* assigning Travancore, south of Alleppi at least, to Pandya. The title of their ruler was either Pandyan, Maran or Sadaiyan. According to Tamil literature the boundaries of the Pandya kingdom were as follows: on the north the Pudukkōttai Vellâr falling into the sea south of Point Calimere; on the south Cape Comorin; on the east the sea (that is to say the Gulf of Manar and Palk's Strait); on the west according to some authorities "the great plain" or "peruveli," according to others the town of Vannasi, and according to some others the great pass or "peruvazhi." The most ancient capital of the Pandya country was Korkai (the *κόλχοι* of the Periplus) at the mouth of the Tambraparni river. Korkai was the seat of government

* These are the most obvious interpretations of the terms. The following note, however, is supplied by M.R.Ry. Rao Sahib H. Krishna Sastriyar Avargal, Assistant Archæological Superintendent for Epigraphy, Madras:—"I do not think '*ayyan*,' plural '*ayyar*' at the end of proper names is a Dravidian word. It must be a corruption of the Sanskrit '*arya*.' The derived forms '*ajja*' and '*ayya*' are still current in Prākrit. Consequently '*ayyar*' must mean 'the noble'; and '*parppar*' similarly when applied to Brahmans was meant to be interpreted metaphorically as 'those who saw into things,' *i e.*, who knew, or possessed wisdom. I would therefore substitute for 'fathers' and 'overseers' the words 'the noble' and 'the wise.' The ending '*appa*' in the names of Brāhmans and non-Brāhmans of the Canarese and Telugu countries does, however, mean 'father.'

in the time of Vijaya. It was esteemed even by the Greeks several centuries later as the first port in Southern India, and they named from it, the *κόλπος κολχικὸς* or Gulf of Manar. As the point where the more modern Aryan and Grecian civilizations each in turn met the ancient Dravidian civilization, it is a place second in interest to none in India. It is now represented in name by an insignificant village five miles from the coast, but excavations in the neighbourhood show the remains of a once extensive area of human habitation. Even when Korkai being left inland owing to the deposits of the Tambraparni river gave place to Kayal, the latter port nearly monopolized the trade between Southern India and China and Arabia. Under the influence of modern coast changes the centre of commerce again shifted, but only slightly more north to Tuticorin. The chief industry of Korkai was probably the pearl-fishery, and its chief commerce the export of rice, two causes sufficient to collect an important oriental population. The migratory habits of the pearl-oyster have rendered the South Indian fisheries precarious, and the failure of these may have led to the abandonment of the coast as the seat of the Pandyan Government. After Korkai there is some evidence that a place called in Sanskrit Kalyanapuram was made the capital; if so, its site cannot be identified. After this at any rate Madura (*Μόδουρα* in the Greek) became the chief city; having been founded possibly about the end of the fourth century B.C. The site of even this city has probably been shifted more than once. Thus old Madura is on the north bank of the Vaigai, and about a mile from the present city which is on the south bank. A few miles to the east are the ruins of another ancient city, Manalur, which it is supposed was also at one time the capital. For the purposes of the history of the earliest period it is sufficient to state that the Pandyans were constantly at war with the Cholas lying on their north-eastern border, but were usually at peace with their neighbours to the west; facts for which the geography of the country will account. In the early ages of the Christian era again they formed an alliance with the Cholas, which lasted for a while, till hostilities were resumed. The Pandyans retained the old Vattezhuttu written character till a very late period. One of the oldest segments of the Tamil race is the Marava race, who once boasted a dynasty of their own, north of the Vaigai river and were interposed between the Pandis and the Cholans in the neighbourhood of the coast. In the earliest times they were tributary to Pandya.

The Chola Kingdom.

32. The original meaning of the Tamil name Chola, properly Chozham, is southern. Cholamandalam or the realm of the Cholas is held to be the origin of the term Coromandel applied by foreigners to the peninsular shore of the Bay of Bengal. The word Chola appears in numerous names of places, a familiar example of which is *Sholingar* in the North Arcot district. As above mentioned the Asoka inscriptions speak of the Cholas under the name of Chodas. The Chola kingdom lay to the north-east of the Pandyan kingdom. The capital was first Oraiyur, afterwards Tanjore, and finally a place called Ganjaikonda Cholapuram, near the present Trichinopoly. All tradition points to the Chola kingdom as being of the same age as the Pandyan. The Cholas were constantly at war with the Pandyans and also with Ceylon. Their early history however is almost a complete blank; and there is not even a list of kings, real or imaginary, as there is in the case of the Pandyans. The Cholas began to be prominent about the middle of the ninth century of the Christian era.

The Chera Kingdom.

33. The name Chera like Pandya means, in ancient Tamil, "toddy or palm juice." It is the oldest known name for Travancore. This kingdom was before historic times eclipsed to a great extent by others. As above mentioned the Asoka inscriptions speak of the Chera ruler under the name of Ketalaputra. Chera is always spoken of in tradition as well as in the written authorities as contemporary with Pandya and Chola. Cheramandalam is by some held to have included the present Mysore, Coimbatore, and Salem, the old Tondainad, and the present South Malabar and Cochin. To the south-east at any rate it was always confined by Pandya and Chola. A tradition places the tri-junctional point of the Pandya, Chola and Chera kingdoms on the banks of the Karaipottanaru, a small river entering the Cauvery eleven miles east of Karur. Various principal towns assigned to Chera are Karur, Avanasi, Salem, and other places on the West Coast. Long lists of original Chera kings are preserved. This kingdom, however extensive, was not according to record at any time belligerent. Its strength was the commerce of the south-western ports. It is related that the Pandyan ruler when invaded by enemies was in the habit of resorting to the king of Chera. South Travancore itself has throughout history preserved an immunity from foreign invasion.

The Kerala Kingdom.

34. On the Malabar coast north of Travancore, a part of the country which was early brahmanized, the word Chera was converted into Kerala; and this is the form used in Sanskrit for the whole Chera peoples and countries. The boundaries of Kerala are rather indeterminate. In its widest sense, it extended from Gokarna to Cape Comorin. The history of early foreign rule in Malabar is confused, and Chera, Chola and Pandya may have all exercised sway over different parts of it; or over the whole of it at different times. According to Arrian and Pliny, Malabar was included in the Pandyan kingdom in the early ages of Christianity.

The Kongu Kingdom.

35. Another portion of the old Cheramandalam was the Kongu country. This is not defined by native authority, but comprised approximately the present districts of Coimbatore and Salem. The ancient capital was Skandapuram: perhaps near the present Gejalhatti Pass, formerly the highway from Mysore to Trichinopoly. In the third century of the present era the Kongu capital was transferred to Talakad on the Cauvery, and all the south of the Mysore country appears to have been then included.

The Pallava Kingdom.

36. The Pallavas were either the ruling power among the Kurumbas, or superseded them. This people is not mentioned in the Asoka inscriptions, or by the most ancient foreign nations. The Pallavas are identified originally with the basin of the Palar, the river which disembogues at Sadras. This country was later known as Tondaimandalam, or the country immediately surrounding the present capital of Southern India. Their first known capital was Conjeeveram. They are reputed to have been the constructors of the monolithic raths at Mahabalipur or the Seven Pagodas. They had also a centre at Puzhalur, near the modern Red Hills, ten miles north-west of Madras.

The Kalinga Kingdom.

37. The Kalinga realm may be included among the most ancient. The origin of the term is not known, but the Malays still designate all inhabitants of the Coromandel coast as Klings. The name appears in the modern Calingapatam, Coringa, etc. Kalinga is alluded to in the earliest extant chronicles of India and Ceylon. The oldest Buddhist legends speak of the Kalinga monarchs as rulers of a civilized country. The name ordinarily indicates the country north of the Gōdāvari and south of Orissa, and running inland as far as the Eastern Ghâts, but has also been used to include Orissa, and even the country as far as the Ganges valley. Callingapattam, Chicacole and Rajamundry were at different times principal places within the limits of Kalinga.

Knowledge of Southern India in the most ancient times by foreigners.

38. The first authentic notice of India is afforded by the invasion of Alexander the Great. The expedition of Seleucus and the embassy of Megasthenes brought to light the existence of an empire, of which the capital was Palibothra on the Ganges. The interposition of the hostile monarchy of the Parthians cut off all land communications between Rome and India, but one embassy from this country reached the court of Augustus, proceeding by sea from the coast of Malabar. The Periplus of the Erythræan sea gives valuable information as to the commerce of Southern India in the first century of the Christian era.

The Muhammadan Conquest.

39. The conquest of India by the Arab dynasty of Ghazni in Afghanistan forms the era at which commences a regular series of Indian history supported by written documents. Mahomed the Great united all the west of India, with Khorassan and a great part of Tartary, into one empire. His dynasty was subverted by that of Ghori, another Afghan kingdom, and this was followed by a long series of emperors similarly decended, but ruling at Delhi. In 1398 Delhi was taken by the Tartar Tamerlane. A century afterwards Babar founded again at Delhi the Moghul or Mongolian empire. Along with Afghanistan, it included the whole of Hindustan, and nominally the whole of Southern India. The Muhammadan races first made their influence felt in Southern India and Ceylon many centuries before this period by the establishment of trading emporia on the coasts. On the Malabar coast, Calicut, and in Ceylon, Manar and Mantotte or Mantai were the chief entrepôts of traffic for the Moorish merchants, who received from agents at various ports the produce of different parts of the East. There was even a closer connection between the Maldives and the Muhammadan settlements on the Malabar coast, notably Cannanore, resulting in a feudatory subjection of the islands to that state. Delhi had been captured by the Ghazni Ghorians in 1193, and a dynasty established there *1193.* which lasted till A.D. 1288. The Khiljis succeeded, occupying the period from *1288.* 1288–1321; and Alá-ud-dín, nephew of Jalal-ud-din Khilji, led the first Muhammadan expedition into the Deccan in A.D. 1294. Ten years later the Mussalman armies *1294.*

under General Malik Kafur swept over the whole of the Deccan. The Yadava Devagiri State and the Ganapathi Warrangal State were then both reduced to subjection; and Dwarasamudra, the capital of the Hoysala Ballalas, was taken and sacked. These early inroads reached even to Tanjore and Madura in the extreme south, but how far the Chola and Pandyan kingdoms were affected politically is not recorded. Anarchy at any rate followed, over the greater part of the south; the Muhammadan governors, the representatives of the old royal families, and the minor local chiefs, all engaging in internecine struggles for supremacy. A slight check was given to the spread of the Muhammadan arms when a confederation of Deccani Hindu chiefs, led by a Kakatiya Raja, defeated a large Muhammadan army. The aspect of affairs was later altered by the revolt of the Deccani Muhammadans
1347. against their sovereign in A.D. 1347, which resulted in the establishment of the Bahmani kingdom of Gulbarga in the Deccan. The Hindus also made one final effort to achieve imperial rule.

The Hindu Vijianagar Dynasty

40. While the Muhammadan rebels were consolidating their kingdom in the Deccan, another large power was being formed south of the Kistna. This was the Hindu kingdom of Vijayanagar founded in 1336. The site of the capital
1336. was the present Hampi in the Bellary district. The Vijayanagar kingdom speedily rose to a height of influence such as no southern kingdom had yet attained, and held the Muhammadans in check for two centuries; but not without reverses. At
1364. the first conflict in 1364 between the Bahmani Muhammandans and the neigh-
1374. bouring ruler of Vijayanagar, the former depopulated the country. In 1374 Mujaid Shah of Gulbarga overran the whole Peninsula down to Cape Comorin. The Bahmani kingdom presently fell to pieces; being succeeded by five separate kingdoms, hereafter to be named, founded by rival Muhammadan leaders. Their
1479. jealousies aided the Vijayanagar sovereigns in the acquisition of power. In 1479 the first Vijayanagar dynasty came to an end, another being instituted by
1487. Narasinha. In 1487 this kingdom completely subverted the Pandyan country, Chola having fallen long before. By the close of the fifteenth century the power of Vijayanagar was acknowledged as paramount through the entire peninsula. Small principalities existed, such as Mysore, the Reddi chieftainship of Kondavid, south of the Kistna, Nellore, the Gajapati dynasty of Cuttack, the Bidars of Harpanhalli, and the always independent principality of Travancore; but Vijaya-
1509. nagar was supreme. Narasinha was succeeded in 1509 by Krishna Raya, who reduced the whole of the east coast of the peninsula into subjection. The dynasty in his day reached its greatest height. His minister was a Brahman, the well-known
1516. Timmaraja. The traveller Barbosa describes the city of Vijayanagar in 1516 as "of great extent, highly populous, and the seat of an active commerce in country diamonds, rubies from Pegu, silks of China and Alexandra and cinnabar, camphor, musk, pepper and sandal from Malabar." The palaces of the king and ministers and the temples are described as "stately buildings of stone." According to the same authority the kingdom comprised the whole of the kingdom south of the
1564. Kistna. Ramaraja, the minister's son, was reigning in 1564 when his kingdom was conquered by the five new Muhammadan dynasties. The kingdom of Bijapur was founded by Adil Shah in 1489. It retained its independence for 197 years, until it was absorbed by Aurangzeb in 1686. The Nizam Shahi dynasty of Ahmadnagar was established in 1487 by Ahmad Nizam. It was subverted in 1637 by Shah Jahan. Imad-ul-Mulk made himself independent at Berar in 1484, and commenced the Imad Shahi dynasty, which was extinguished at the end of ninety years by the king of Ahmadnagar in 1574. Kuli Qutb, a Turkoman, who rose to be Governor of Golconda, established his independence there in 1512. This dynasty was subverted by Aurangzeb in 1687. The dynasty of Bidar was established in 1498 by Ahmad Barid. In 1564 these Muhammadan sovereigns combined, defeated the Hindu army at Talikot, and sacked the capital of Vijayanagar. For a second time the whole of the peninsula was thrown into confusion. The minor chiefs seized the opportunity for throwing off their dependence; and throughout the peninsula arose a large number of petty palegars and small chieftains whose quarrels and wars and struggles for supremacy kept the country disturbed for two and a half centuries.

The Nayaks of Madura.

41. The only Hindu chiefs that attained to real power after the close of the Vijayanagar dynasty were the Madura Nayaks, formerly viceroys of Vijayanagar. Visvanatha Nayak, a Telugu officer of Achyuturaya, after completing a victorious

campaign against Tiruvadirajya (*i.e.*, the Travancore country) appears to have been deputed to conquer Vaṇaṇaraya who was then powerful in the Pāndya country. After successfully discharging this task Visvanatha secured for himself a permanent footing and was made Governor of Madura. He took advantage of the hostilities between the Rajas of Vijayanagar, and their Muhammadan neighbours, to convert his government into an independency and was succeeded in it by his descendants. The dynasty continued till the middle of the eighteenth century. The greatest of the line was Tirumala Nayak.

Progress of the Muhammadans.

42. While the country was in this state the Muhammadans gradually pressed downwards, securing the dominion of the parts south of the Tungabhadra and eastwards to the sea, and encroaching southwards, till they had reached the lower confines of the Telugu country by the middle of the seventeenth century, and by the beginning of eighteenth had extended yet further.

European Settlements in India.

43. The first modern European nation to establish a settlement in India was the Portuguese. They occupied Calicut and Goa on the West Coast at the beginning of the sixteenth century. Vasco da Gama and Cabral were the pioneers of Portuguese commerce, and Albuquerque laid the foundations of Portuguese power in India. Fierce struggles took place between the English and the Portuguese near Surat and in the Persian Gulf; but the Portuguese power began before long to decline in consequence of the successful attacks of the Dutch and the neglect of their parent country. The Dutch were the second modern European nation to establish themselves in India. After occupying various stations in the Eastern Archipelago, they settled at Pulicat, Sadras, Palakollu, and other places on the eastern coast of Southern India, from the beginning of the seventeenth century onwards. This was the period of the pālegārs, of the Nayak rule at Madura, and of the progress of the Muhammadans southwards. The Dutch rapidly dispossessed the Portuguese of Ceylon and the southern stations on the Malabar coast; but in the next century they were outdistanced by both the English and the French. The Danes came to Tranquebar in Southern India in the seventeenth century; but their occupation of that settlement was wholly peaceful although they more than once came to blows with the troublesome Government of Bengal.

The Earliest English Settlements.

44. The European nations, as is well known, began their career in this country as merchants. In order to carry on their business, they erected factories, which they always endeavoured to fortify so as to secure themselves from the hostility of the various native powers. The first place at which the English traded on the Eastern Coast of India was Peddapalli, now Nizampatam, a seaport in the Kistna district. Captain Hippon in the ship "Globe" landed there in 1611. He had at first touched at Pulicat, but the Dutch Governor refused to *1611.* allow him to trade. Having left an establishment at Peddapalli with means for carrying on commerce, he sailed to Masulipatam and proceeded similarly. The Masulipatam station became a well established factory and formed the starting point of the English trade on the East Coast; and two years later the English obtained their first treaty of protection from the Moghul Emperor, Jehanghir, at Surat. In 1616 the English at Surat established factories on the West Coast at *1616.* Calicut and Cranganore, by permission of the Raja or Zamorin of that country. Subsequently the English established a factory at Pulicat, by the side of one already placed there by the Dutch in 1609. This was effected under a treaty concluded *1609.* between King James I and the States General. But in a few years it was necessary to withdraw these factories owing to the jealousy of the Dutch. In 1628 two years after the massacre of the English by the Dutch at Amboyna, and after unsuccessful attempts to escape from the unpleasant proximity of the Dutch at Batavia where the English headquarters in the "South Seas" were for a while situated, a factory was established at Bantam, becoming the Presidency for the factories on the Coromandel Coast. In 1624 from Batavia the English had *1624.* tried in vain to settle at Karikal. In 1626 they had established themselves at *1626.* Armegam 40 miles north of Pulicat, where a small fort was built. This was not so well suited for trade as Masulipatam which was more immediately adjacent to the seats of native manufacture. The local Governor however at the latter place exacted such heavy dues that the factory was ordered to be withdrawn. The English goods were placed in the charge of the Dutch at Pulicat; and Brewen and his colleagues sailed secretly for Armegamin a native boat in 1628. However *1628.*

trade proved less profitable at Armegam than at Masulipatam, and in 1630 two vessels were despatched from Bantam under Henry Sill to reopen trade at the latter place. Nor were the English content with that. A letter from the factors at Masulipatam to Surat of the same year mentions factories at Pattipoli, Viravasaram and Motupalli. Thus opportunities were afforded for an active trade on the Coromandel Coast. The natives there had brought the art of painting calicos to a high pitch of perfection and these commodities were in demand not only in Europe but also in countries to the eastward—in Burma, Siam, and what were known as the Spice Islands in the Indian Archipelago.

Settlement at Madras.

45. Whether owing to the ill-will of the Venkatagiri zamindar whose territory was adjacent or to the fact that the place was not convenient for the inland trade in piece-goods, the Armegam factory did not exist long. Francis Day, who was then a member of the Masulipatam Council and chief of the Armegam factory, and Andrew Cogan seem to have proposed a removal to the south of the Dutch Settlement, Pulicat, and in 1639 an arrangement was made with the local Nayak called Damarla Venkatadri Nayudu by which the English were to be allowed a settlement at the place which is now Madras. The factors subsequently in 1645 judged it prudent to obtain a formal grant from the recognized ruler of the country who was then Sriranga Rayal, a descendant of the ancient Vijayanagar kings. After their defeat by the Muhammadan kings of Bijapur and Golconda at the battle of Tallikot in 1564, the broken remnant of royalty had fallen back on their southern possessions; first to Penukonda now in the district of Anantapur and then in 1594 to Chandragiri. The grant of Madras was one of the last acts of the race for in 1645 the Qutb Shahi kings of the Deccan expelled him from the country and he became a refugee in Mysore. The term Madras by which the place has always been designated by Europeans is of doubtful origin; the most generally accepted derivation is from Madrasa or College. The native name Chennaipattanam is generally connected with the name (Chennappa) of Damarla Venkatadri's father, but this is doubted by some authorities.

1639.

1645.

Fort St. George.

46. Without waiting for instructions from the Company, but on the strength of somewhat ambiguous instructions from Surat, Day proceeded to the construction of a fortress which was soon surrounded by a town. The latter he allowed to retain its Indian appellation, but the former he named Fort St. George. The territory granted consisted of the ground on which this fort was built and its immediate vicinity, including what was considered to be an advantageous site for a fort, namely, the small island formed by two branches of the river Cooum. This was 400 yards long by about a 100 yards wide and it could be easily rendered secure against the predatory attacks of native horsemen.

The first thirty years of the Madras Settlement.

1640–1670.

47. During the half century immediately following the first establishment of the town, the settlers found themselves in many uneasy situations. The advance of the Muhammadan king of Golconda into the Peninsula and the occasional inroads of Mahrattas hindered the operations of their trade. The Chandragiri Raja was conquered as mentioned above in 1646 by the Muhammadans; and Neknam Khan, then known as the Nawab, the officer of the king of Golconda who commanded the country surrounding Madras, was seldom contented with the yearly rent. Presents and fines were exacted and occasionally an embargo was laid upon goods and supplies going to Madras. Nevertheless in 1649 the fort and customs were valued at £6,000. For the first twelve years of its existence it was subordinate to the Presidency of Bantam in Java; but in 1652 Fort St. George was raised to the rank of a separate Presidency, independent of Bantam, and Aaron Baker became the first Governor. In 1642–1643, the Agent and Council acquainted the Company with the absolute necessity of equipping the fort properly. In 1651 orders having been received from England not to add to the strength of the fort, the agent stated that unless it was strengthened trade could not be extended. Similar representations were made in 1652 on the arrival of news that war between England and Holland was imminent. In 1654, however, the Company ordered that the civil establishment should be reduced to two factors and that the guard should consist only of ten soldiers. The English trade on the Coromandel Coast then declined as a consequence of the inland wars and the superior force of the Dutch by land and sea. In 1657 complaint was also made that the competition of merchant adventurers had enhanced the prices of goods. By a new arrangement in 1658 all the factories on the Coromandel Coast and in Bengal were made subordinate to Fort

St. George. From communications received in 1660 by the Company it appears that the trade at Fort St. George was then beginning to revive. Sir Thomas Chambers had the year before become Governor. In 1661 Sir Edward Winter, an old servant of the Company on the Coast, was appointed Governor. With a high sense of the prerogative of his nation and of the political exigencies attending the Indian stations, he was, nevertheless, not supported by the merchants composing his Council. The stand which he assisted on making against the demands of native powers gave a temporary check to trade; and this circumstance was used to his disadvantage. In 1665 he was superseded on the ground that he had unduly engaged in private trade. George Foxcroft, a London merchant, thus succeeded Sir Edward Winter and the latter then took a seat as second in the Council. But shortly after, on the pretext that the language of the new Governor was treasonable to the English Crown and endangered the position of the settlement, he seized and imprisoned him and it was only in 1668, when Foxcroft had been detained for over two years as a prisoner, that Winter yielded to a royal mandate sent out by Commissioners. Foxcroft then became agent once more; but the Company in 1669 sent out Sir William Langhorne with six Commissioners to investigate the whole of this transaction; and recalled both parties. Mr. Foxcroft was succeeded in 1670 by Sir William Langhorne. In that year the fort was besieged by a local Nayak or a Hindu district officer, but on application to his superior, the Nawab of the Carnatic, the seige was raised. In 1662 a Muhammadan general of Golconda had seized San Thomé. Numbers of Portuguese on that occasion fled from the town, and many took refuge in Fort St. George itself and built houses the walls of which served as a frail defence of part of the island on which the fort was built.

48. Sir William Langhorne was Governor of Madras from 1670 to January 1678, and in the first year of his administration the Muhammadan ruler of the Carnatic made over to the Company his claim on the customs at Madras for a fixed rent of 1,200 pagodas, or 4,200 rupees, per annum. In 1671 a French fleet arrived in India and in 1672 the French forces captured St. Thomé from the Muhammadans who had held possession of it since 1662. Shortly after this the Muhammadan army under the command of a General named Bobba Sahib endeavoured to recover the place. The position of Sir William Langhorne at this juncture was highly critical. It was dangerous to assist the French against Bobba Sahib, and yet the French and English were at that time in alliance. Furthermore a Dutch fleet was cruising off the coast of Coromandel, blockading the French at St. Thomé and though it met with no immediate success, there was a likelihood that it would attack Fort St. George. Sir William Langhorne endeavoured to come to definite terms with Bobba Sahib, but overtures were rejected. After a year and a half the French still remained in possession of St. Thomé; and within that time they had established a camp at Triplicane, now the Muhammadan quarter of Madras, and fortified it more strongly than the English had fortified the White Town. In the face of these belligerent powers and as trade was meanwhile at a standstill, Sir William Langhorne and his Council at one time contemplated the advisability of abandoning Madraspatnam altogether, for the neighbourhood of St. Thomé, formerly a source of assistance, had now become the cause of continued anxiety. Afterwards, however, more energetic measures were decided upon, and at a consultation held on the 2nd February 1674, it was resolved, the interests of the Company and the lives of all their servants being at stake, to strengthen the fortifications. It may here be mentioned that at this time four Frenchmen from Java were staying in Fort St. George; and in May 1674 both the Dutch and the Muhammadans peremptorily demanded their removal. To these demands Sir William Langhorne for a long time paid no attention, because of the English alliance with France. The Frenchmen refused to leave the place unless they were permitted to go to St. Thomé, and thither the Dutch and Muhammadans would not allow them to proceed. Finally, having been blockaded for eight months on their account, the President sent them with passports and an escort to the distant Bijapur, the Muhammadan Kingdom in the Western Deccan. On the 26th August 1674, the French were compelled to surrender St. Thomé to the Dutch, which they did on the condition that their garrison should be transported to Europe. At that moment the news arrived from Europe that in the preceding January peace had been concluded between England and Holland. But for this the Dutch would doubtless have followed up the capture of St. Thomé by the seige of Fort St. George; and the fall of the place might well have followed, as the fortifications were still weak,

Madras. *1670–1677.*

and there were only two hundred and fifty men in garrison. Dr. Fryer, the traveller, visited Madras in 1673 and wrote an interesting description of the place illustrated by a plate that is both a plan and a picture; this is however not entirely accurate.

49. Sir William Langhorne was recalled from Madras in 1678 on a charge of having given undue advantages to a native merchant for a consideration, and was succeeded by Streynsham Master, an old servant of the Company who had distinguished himself in a defence of Surat against the Mahrattas. It was at this period that Sivaji, founder of the Mahratta empire, attained the height of his power. He had assumed all the insignia of a monarch; and an English deputation from Bombay had been present at his coronation. This ruler suddenly invaded the south of the peninsula in order to secure control of the possessions which his father had acquired there. He set out from his dominions in the Western Ghâts, marched through the Deccan from the north-west to the south-east, and penetrated as far as Tanjore. On his way he passed by Madras. The entries in the consultation books of the Presidency show that presents were sent to him of ordinary necesssaries that he needed at a cost of sixty pagodas. There were constant rumours that he was about to attack the English and Dutch settlements. After a while, however, having added Gingee to the Mahratta possessions in the south and having fought several severe battles with the Hindu ruler of Mysore, Sivaji retired to his own country.

1686-1688. 50. About this time a more regular system of administration of the Indian stations was instituted, and the different ranks of the Company's servants were definitely settled. Other factories had recently been established to the north-eastward, and the whole of these continued under the authority of the Madras Government until Bengal was separated twenty years later. In 1678 the Governor and Council constituted themselves, according to their earlier practice but in a more formal manner, into a Supreme Court of Judicature, for dealing with Europeans and for hearing appeals. This in 1684 was superseded by an Admiralty Court, presided over by a Judge Advocate, and competent to hear both civil and criminal appeals from the Mayor's Court. In 1726 a charter constituted the President and Council, a court of appeal in civil causes and also a court of Quarter Sessions, which continued until late in the eighteenth century when, after a recorder's court had been for a short while in existence, the Supreme Court was instituted. The latter by fusion with the East India Company's Sadar Court hereafter to be mentioned became in 1862 the present High Court. In October 1680 there were difficulties of internal administration at Madras. Resistance to taxation arose among the "painters" of calicoes; and the whole body left the Company's jurisdiction and went away to St. Thomé, threatening to assassinate the native servants of the Company who refused to join them. These men also prevented provisions and goods from entering the town. The Governor and Council thereupon entertained a hundred Portuguese to keep guard over the calico washers, that they might not follow the same example. The wives and children of the mutineers were taken out of their houses in the Black Town and driven into the pagoda; and it was proclaimed by beat of drum that unless the mutineers delivered themselves up within ten days, all their houses, goods and chattels within the jurisdiction of the Company would be confiscated. Eight days afterwards the ringleaders were arrested at St. Thomé and brought within the Company's territories. These were committed to prison; and on the same evening the remainder came into the town and made their submission. St. Mary's Church in Fort St. George was consecrated in this year.

51. Master held the same views as had previously been held by Sir Edward Winter as to the necessity of accompanying commercial enterprise in the Indies with the exhibition of considerable material force. The experience which he had gained by residence in the country had also taught him to understand the characters of the different authorities with whom he had to deal and to give to each his station.

1686-1688. 52. William Gifford who succeeded Master in 1681 soon gave offence to the Company by undue compliance with the desires of the native inhabitants of Madras to escape taxation. The Company had been for a long time anxious to raise a quit-rent from all the householders in Madras, Native and European. They hoped by so doing to defray the yearly charges for repairs and fortifications. Master had

succeeded in raising some such tax, applying it, however, not for repairs or fortifications, but for promoting the sanitation of the Black Town. On his departure the native inhabitants of the Black Town petitioned against the tax and the new Governor abolished it. On the 20th September 1682, the Company wrote to the Governor and Council as follows :—"Our meaning as to the revenue of the town is "that one way or another by Dutch, Portuguese or Indian methods, it should be "brought to defray at least the whole constant charge of the place, which is "essential to all the Governments in the world. People protected ought, in all parts "of the universe, in some way or other to defray the charge of their protection and "preservation from wrong and violence. The manner of raising which revenue we "shall leave to your discretion, as may be most agreeable to the humour of that "people." This order was frequently repeated, and Mr. Gifford was at length compelled to decide that a small monthly tax should be levied on all the inhabitants. The heads of the castes were sent for, and they were told that if they were not willing to pay this tax they must sell their houses and remove elsewhere. They agreed to pay annually "9 fanams for every great house, 6 fanams for every small house, and 3 fanams for every little round house." The matter nevertheless remained in abeyance till January 1686, when in consequence of peremptory orders from England, Littleton was appointed to collect the tax. A tumult ensued and all the shops were shut. To suppress the sedition an armed force was accordingly called out. Proclamation was made that if the heads of the castes did not submit themselves before sunset their several houses would be pulled down, the ground would be sold and they themselves with their families would be banished from the town for ever: and that if the bazaar people did not open their shops and carry on business as usual, their shops would be confiscated and a fine would be inflicted. The next morning the heads of the castes appeared before the Council and stated that they would not obey their orders: but on perceiving that the latter were determined in the matter, they complied. In the same year the Company established what has been called a bank but the measure was really no more than receiving loans at a fixed rate of interest, a practice which was continued a considerable way into the eighteenth century. At this period special mention is made of interlopers, or private traders whom the Company's agents were instructed to seize where practicable. On the 12th December 1687 the population of the city of Madras, Fort St. George, and the villages within the Company's boundaries, was reported in a despatch to Court to be 300,000 persons. In 1687, Pondicherry was established by the French and in 1690 Fort St. David was built by the English

53. Elihu Yale became Governor in July 1687. The early years of his administration are marked by events of importance in the general history of India. The head of the Company in England at this time was Sir Josiah Child who had instituted a new policy of retaliating upon the country powers which interfered with the Company's trade. A force was sent out consisting of 10 ships and about 100 European soldiers to Bengal. In October 1686 hostilities broke out at Hughly prematurely, before all the forces had arrived in Bengal, on account of the seizure of some English soldiers who had gone to the bazaar to buy food in defiance of the Governor's prohibition. The affray became general and finally the English vessels cannonaded the town, the greater part of which was burnt. The Nawab of Bengal was desirous of gaining time in order to assemble troops to punish this insolence, and he accordingly amused the English with pretended negotiations while the English established themselves temporarily at Sutanati, the site of the future Fort William. At Bombay also on the other coast Sir John Child, brother of Sir Josiah Child, and Governor, made successful ventures by sea against the Moghul shipping. These successes had no immediate effect. The English at Sutanati withdrew from that place and established themselves on the island of the Injelli at the mouth of the Hughly where they suffered much from sickness. The Emperor Aurangzeb now ordered vigorous action against the English. The factories at Masulipatam, Vizagapatam and Surat were all seized. In 1688 Captain Heath arrived in Bengal in charge of a fleet and with orders to capture and occupy Chittagong; consequently negotiations that had been begun again were broken off. All the officers of the Bengal factories including Job Charnock, the Company's agent in Bengal, were embarked on board Captain Heath's ship and after cannonading Balasor and appearing off Chittagong, the fleet sailed for Madras and there left the civil establishments. At this moment the English held nothing but their two forts of Bombay and Madras, and in such a position of affairs Aurangzeb might have pressed his advantages.

Affairs in connection with Bengal. *1686–1688.*

Though master however on land, he was powerless by sea; and considerations connected with maritime trade and the pilgrimage of Muhammadans to Mecca induced him to come to terms with the English. The factories were restored and Charnock returned to Sutanati and shortly after, in the neighbouring village of Calcutta, he laid the foundations of the future metropolis of India. In 1688 a Mayor and Corporation were established in Madras, forming a court of civil and criminal justice until 1727, and thereafter a court of civil justice only until 1797, when under the presidency of an English recorder it assumed the title of Recorder's Court. The Recorder's Court was merged in the Supreme Court of 1801. The mint which had long been established for gold coinage was in considerable activity and in 1692 permission was obtained to coin rupees. It may be noted that Governor Pitt at a slightly later period asserted that he had coined as much, year by year, as the mint did at London in normal times. Anxiety was caused at this period by the appearance of English pirates on the Coromandel Coast. To this period also belongs the first appearance of the Armenians in Madras. By a contract made with the Directors of the Company in June 1688 they were invested with certain privileges and rights and were thus encouraged to reside within the English settlements.

The Mahrattas.

54. The affairs of Madras were at this time materially affected by the Mahrattas. The country between the rivers Kistna and Coleroon is known by the general name of the Carnatic. Politically it was divided at this time into a northern and a southern region, which may be distinguished as the Moghul Carnatic and Mahratta Carnatic. The Moghul Carnatic had been previously a province of the independent Muhammadan State of Golconda and had recently owing to the conquests of Aurangzeb become a province directly under the Moghul; and this included the English settlement at Madras. The Mahratta Carnatic comprised the southern region which had been conquered by Sivaji, and included the French settlement at Pondicherry. The frontier between Moghul and Mahratta dominion was formed by the celebrated fortress of Gingee. This was situated on three precipitous hills or rocks about six hundred feet high connected by lines of works, and enclosing a large triangular plain. For many ages it had been regarded as the strongest military post in the Carnatic, and it had once been the stronghold of the Chola kings, In 1677 it had been captured by Sivaji. In 1689, it was in the possession of his son Ramaraja and was the frontier fortress of the Mahrattas against the Moghuls. In 1690 Zulfikar Khan, commanding the Moghul army in the Carnatic, laid siege to Gingee. This general, one of the most distinguished persons of his time, was not only in command of the Moghul army before Gingee, but also exercised a powerful influence at court. On a rebellion breaking out in the Moghul army, Yale supplied Zulfikar Khan with ammunition and rendered other services; as a reward for which he obtained a farman from the Moghul general, confirming the English Company in the possession of all their settlements in Golconda territory and Gingee territory. In 1691 the Mahrattas were still masters of Gingee, Ramaraja controlling the whole country from Gingee to the river Coleroon; and so firmly was his power established that the English, when requiring the site of Fort St. David, had found it necessary to purchase it from him. In 1692 Zulfikar Khan was still besieging Gingee, being accompanied by the youngest son of the Emperor Aurangzeb, named Kambaksh. In December 1692 the Moghuls were defeated by the Mahrattas and many of the Moghul officers fled to Madras in disguise. This year a farman was obtained from Zulfikar Khan, granting Egmore, Purasavakam and Tandur to the Company rent-free. The villages were afterwards demanded by the Poonamallee Nayak, who alleged that the Nawab had granted them to himself, and the Agency experienced some difficulty in obtaining possession. Finally however, in March 1694, permission was received from Zulfikar Khan to take possession of these places. In January 1693 an English soldier in the service of Zulfikar Khan returned to Madras bringing news that Kambaksh had tried to escape to the Mahrattas, and had been seized and imprisoned by Zulfikar Khan; and that the camp of the latter having been reduced to starvation from want of provisions, the Moghuls had retired to Wandiwash, leaving most of their baggage at the discretion of the Mahrattas. In 1696 the Mahrattas were found to be increasing their forces at Gingee, and the settlement at Fort St. David was warned to keep on good terms if possible with Ramaraja and his officers. Later in the same year, Zulfikar Khan sent to Madras to borrow a hundred thousand pagodas, equivalent to about forty thousand pounds sterling. Nathaniel Higginson, who was Governor of Madras, sent a present, but declined

to lend the money; and there was some anticipation that Zulfikar Khan would make reprisals on the town. Eventually in 1697 Zulfikar Khan obtained reinforcements and defeated the Mahrattas near Tanjore, and in 1698 he captured Gingee by means of bribery. This general had already granted farmans, confirming the English in the possession of their territorial settlements; and he now procured them corresponding farmans from the Vizier in the Emperor's name. For this a consideration was paid of ten thousand pagodas or about four thousand pounds sterling.

Madras.

55. To return to matters more immediately concerning the settlement, in 1689 war had broken out between France and Holland, and in August 1690 the combined Dutch and English fleets engaged in an indecisive action with the French off Madras. The next year Sir John Goldsborough was sent out to Madras with authority to decide certain disputes between Elihu Yale and his Council. Directions were given to improve the revenue of Madras by increasing the quit-rents, and by imposing a duty on licences for public houses. The town was to be extended, and a quarter was to be assigned to the Armenians. It was also ordered that the members of the Court of Aldermen should be of different castes, namely "one Armenian, one or two Hebrews, one or two Portuguese, one or two Gentoos, and one Moor or Mussalman." The factories at Kunimedu and Cuddalore were withdrawn. The military establishment at Fort St. George was also retrenched. As a result of the commission at Madras Nathaniel Higginson became Governor in 1692.

1689–1692.

1693–1697.

56. In August 1693 the Dutch appeared before Pondicherry with a large fleet, and captured it after a siege of twelve days. In 1694 there was a report of a French equipment of nine ships for India, and it was ordered that additional precautions should be taken at Fort St. George and Fort St. David. Meanwhile the depredations of pirates increased, and trade on the Coromandel Coast was much depressed. In 1697 a petty attack was made on the Company's factory at Anjengo on the Travancore coast. In 1694 the Company had obtained permission from the native queen to fortify Anjengo, but in November 1697 the same ruler sent a force to eject the English as pirates. The native force was repulsed in two engagements, without loss. About the same time Salim Khan, brother of Daud Khan, hereafter to be mentioned, made two attempts upon Cuddalore, both of which were defeated. By the treaty of Ryswick in September 1697 Pondicherry was restored by the Dutch to France.

1700.

57. In 1700 Bengal was made independent of Fort St. George. In 1698 Thomas Pitt, grandfather of the celebrated Earl of Chatham, had succeeded Higginson as Governor of Madras. Disputes now arose between the old or London Company, the new or English Company and the Scotch East India Company originally embodied by King James I in 1617. These led to depression of trade, and the circumstances finally brought about an amalgamation of all traders to India, under the appellation of the "United East India Company," established under Queen Anne's Charter in 1702.

1701.

58. In 1701 Zulfikar Khan was succeeded by Daud Khan as Nawab or military commandant of the Carnatic. The English sent this officer letters and presents. A present valued at seventeen hundred pagodas was given in public, and another of three thousand rupees was given in private. The Nawab however sent back the presents desiring to receive ten thousand pagodas as his predecessor had done, and he threatened to destroy Madras and establish St. Thomé in its place. Pitt refused to pay the money, landed men from the merchant ships, increased the train bands and raised a force of Portuguese. Daud Khan blockaded Madras for three months, but finally accepted the present. In 1703 renewed attempts were made by the Nayak of Poonamallee to obtain possession of the Company's outlying villages of Egmore, Purasavakam, and Triplicane, which were frustrated by the decided action of the Government. Up to 1703, gunpowder formed one of the articles supplied from England; but about this period the manufacture of it was so much improved at Madras, as to preclude the necessity of importing it for some time. The practice, however, seems to have begun again, for in 1749 the Company wrote that henceforward gunpowder was to be supplied from Bombay instead of from England. In 1707 occurred serious disputes between the right and left hand castes or factions, which resulted in the retirement of the former to St. Thomé, but the matter was

finally arranged. Pitt's administration was distinguished by the establishment of a closer relationship with the Court at Delhi. Aurangzeb died in 1707, and the event was followed by a war between his sons. The elder son gained the victory, but being apprehensive lest his rival should find a refuge in Madras, and make his escape to Persia, he sent a conciliatory letter to Pitt by an influential official. Pitt, while making a suitable response, asked for farman confirming all the privileges which had been granted by Aurangzeb, and the request was granted.

1707–1739.

59. Madras was at this time the most important factory possessed by the Company in India. Other factories on the Coromandel Coast were Fort St. David, Cuddalore, Masulipatam, Porto Novo, Madapollam and Vizagapatam. On the Western Coast the Company possessed the island of Bombay, with subordinate factories at Surat, Broach, Ahmadabad, Suwali, Anjengo, Karwar, Tellicherry and Calicut. In Bengal they had Fort William, and Sutanati or Calcutta, with factories at Patna, Malda, Dacca, Balasor, Rajmahal and Kasimbazar. The English paid their yearly rent of twelve hundred pagodas to the Nawab of the Carnatic, who was subordinate to the *Subahdar* of the Deccan, to whom he paid a yearly tribute. In 1738–39, the power of the Moghul King or Padshah received a severe blow from the Persian invasion under Nadir Shah, and from that date the province began once more to grow independent of the Court at Delhi. The *Subahdar* of the Deccan at this period is best known by his title of Nizam-ul-mulk the "Regulator of the State." He had served in the armies of Aurangzeb and had filled important posts in the Court at Delhi, had been appointed to the Government of all the Moghul conquests in the Deccan, and had engaged in frequent wars against the Mahrattas of Poona to the west and those of Berar to the northward. His dominion extended from the river Gōdāvari southward to the river Kistna, and was bounded on the west by the Mahrattas of Poona; on the north by the Mahrattas of Berar; on the east by the Bay of Bengal. The province of the Nawab of the Carnatic lay to the south of the Nizam's dominions. It extended from the river Kistna southwards to the river Coleroon being bounded on the north by the Nizam's territory; upon the west by the Mysore country; on the south by the Hindu kingdoms of Trichinopoly and Tanjore; on the east by the Bay of Bengal.

60. The period from the Governorship of Pitt to that of Nicholas Morse which began in 1744 is not distinguished by any events of special interest.

The French in India.
1668–1742.

61. The first establishment of the French in India dates as far back as 1668. From 1503 to that period, the French had made various attempts to establish a trade with the East Indies, but without success. The first expedition was driven to Brazil; the next reached Sumatra but lost nearly all its men by sickness; and it was not till 1601 that they seem to have tried to reach India itself. Two ships in that year were fitted out at St. Malo, under the command of Captain La Bardeliére; but one at least was lost off the Maldives before reaching its destination. In 1604 Henry IV incorporated the first French East India Company with a charter for fifteen years. This also achieved little. Colbert did not however allow himself to be discouraged by the fruitless results of efforts prolonged for more than a century and a half. In 1664 he re-established on a better and more extensive basis the East India Company which Cardinal Richelieu had created twenty-two years before. The monopoly of the trade for fifty years was accorded to this Company, which soon collected funds to the amount of 15 millions of francs. In the commencement it displayed great activity. Two successive expeditions were undertaken for the purpose of renewing the attempts at colonization already made in Madagascar; but these expeditions having failed, the Company renounced the projects which they had formed for Madagascar, and a direct commerce with India was again undertaken and continued with spirit. In 1667 a merchant of French origin named Caron, an active and experienced man, became chief of the East India Company. He first established a factory at Surat; but though this city was flourishing and well situated, the Moghul Government was too powerful to permit his establishing such a settlement as he had planned. He desired a port where spices grew. He designed a settlement at Trincomali, but the Dutch, having got wind of his intentions, occupied it before he could get there, and all he could do was to occupy two small islands off the Coast. At this time Caron was recalled to Europe, but De la Haye, the Commander of a French squadron of five ships, in 1672 took St. Thomé, at that time a possession of the King of Golconda; but in 1674 the Dutch succeeded in reconquering the place. This event would

have effected the ruin of the Company, whose affairs had been for some time in a distressed condition, if one of its agents named Francois Martin had not collected the wrecks of the colonies of Ceylon and St. Thomē, composed of 60 Frenchmen, to people the small town of Pondicherry, which as well as the surrounding territory he had purchased in 1674 with the funds of the Company from the Governor of Gingee, then superintending all Sivaji's conquests in the Carnatic. The country was, however, nominally subject to the Deccani king of Bijapur. Martin fortified Pondicherry, and by his superior administration the small colony prospered and soon gave great hopes of success. The Dutch attacked it in 1693. Martin, after defending it with great courage, was compelled to capitulate, and on the 5th September 1693, the town was given up. By the treaty of Ryswick, Pondicherry was restored to the French in 1697, who received it from the hands of the Dutch in a much better state than when they yielded it to them. In 1699 this town became the capital of the French possessions in India. The able administration of Martin succeeded in making it the centre of a rich commerce, and one of the most important towns which the Europeans possessed in Asia. A number of Frenchmen soon spread over the Indian continent and formed new factories. Chandanagar in Bengal was granted by Aurangzeb to the French East India Company in 1688. In 1727 this Company obtained the cession of Mahē. In 1739 it purchased Karikal from the king of Tanjore. And in 1752 Yanam and Masulipatam, which the French had two years before seized, were definitely ceded by the Nizam together with a large extent of territory. Two Governors-General of the French establishments in India, Dumas and Dupleix, contributed greatly from 1735 to 1754 to the prosperity of these possessions. Amongst other advantageous concessions, Dumas obtained from the Great Moghul the privilege of coining money at Pondicherry, which gave to the Company a yearly income of about 500,000 livres. Dupleix, appointed in 1730 Governor of Chandanagar, succeeded in ten years in making that place one of great commercial importance. The town Pondicherry, the government of which was confided to the same officer in 1740, was equally indebted to him. It was under his government that the French possessions and power in the East Indies attained their greatest extent.

Wars between the French and the English. *1744-1749.*

62. Meanwhile and until the end of the first half of the eighteenth century the English had carried on their trading operations tolerably unmolested in the midst of the continual wars between the Muhammadan and Mahratta conquerors of the old southern Hindu powers. The affairs of the French and English between the breaking out of the first war in 1744 and the final overthrow of Lally at Pondicherry by Coote in 1761, sixteen memorable years for both parties, cannot be related here in detail. The European war broke out in 1744. Before that however, indeed as early as 1741, the French ministry sent an armament to India under Labourdonnais, who, already distinguished by his talents and by his successful government of Bourbon and Mauritius, was also intimately acquainted with the politics and resources of India. He was to watch the progress of events in Europe, and be ready to act against the English in case war should be declared. These preparations were known to the English ministry, who in order to check them sent a squadron of four ships to India under Commodore Barnet. That officer for some time cruised successfully in the Straits of Sunda, and after the declaration of war proceeded to the Coromandel Coast. The French Governor at Pondicherry was then Dupleix, the English Governor at Madras was Nicholas Morse. The English troops in the Presidency numbered only 600. On the 4th September Labourdonnais attacked Madras. On the 10th it capitulated, and the generosity of Labourdonnais not being equalled by that of Dupleix, the English Governor and merchants were sent as prisoners to Pondicherry. John Hinde at Cuddalore assumed charge of the English settlements. Cuddalore itself was twice attacked by the French, and twice escaped. In 1747 reinforcements having arrived from England the English in turn besieged Pondicherry, under Admiral Boscawen by sea, and Major Stringer Lawrence by land. Ensign Clive distinguished himself at this siege, which however was raised. The peace of Aix-la-Chapelle was concluded in 1748, and the arrangements consequent on it were carried out in India at the end of 1749, when Madras was restored to the English. The French, during the four years they occupied it, had considerably improved the fort, by enlarging and strengthening the bastions and batteries. They had also demolished that part of the Black Town immediately adjoining the north wall of the fort, and formed an excellent glacis. Another glacis had also been cleared to

1749–1752.

the south. The defences, however, were considered far weaker than those at Fort St. David.

63. The European war being thus ended the forces of the two powers were under the necessity of finding occupation and profit in the various wars between the native princes. It was inevitable that they should take opposite sides in the quarrels and disputed successions that now arose. The campaigns of the Nawabs Zulfikar Khan and Daud Khan in the Carnatic, during the reign of Aurangzeb, have already been noticed. On leaving the Carnatic under orders from the Emperor the latter had appointed Sadat Ullah as his deputy, who governed the provinces from 1710 to his death in 1732 with much moderation and ability. On his demise his nephew Dost Ali Khan assumed the government of the Carnatic, as it were independently; for it does not appear that the Emperor of Delhi, the nominal superior, or Nizam-ul-mulk of Haidarabad, the real superior, were consulted at all. Dost Ali had one son, Safdar Ali; and had married two daughters, one to Murtaza Ali Khan, the other to Chanda Sahib. At this juncture the Mahrattas under Raghuji Bhonsla invaded the Carnatic, and in an action with them Dost Ali was killed. Safdar Ali now made terms with Raghuji, and, on condition of the payment of one hundred lakhs of rupees was recognised as Nawab of the Carnatic. But meanwhile Safdar's brother-in-law Chanda Sahib, on pretext of assisting the widowed Rani, had obtained possession of Trichinopoly; and Safdar was too weak to attack him. Raghuji therefore returned to the Carnatic after his visit to Satara in 1741 and besieged Trichinopoly, when Chanda Sahib was obliged to capitulate, and was kept at Satara until he paid the heavy ransom demanded of him. He had however placed his wife and family in the French Settlement of Pondicherry, under the charge of Dupleix the Governor; and this act led subsequently to strange and important events. A year after his assumption of the Government, Safdar Ali was assassinated by his other brother-in-law, Murtaza Ali who was proclaimed Nawab; but the family of Safdar Ali had obtained protection in the English fort at Madras and his son, a minor, was proclaimed successor to his father. To put an end to these convulsions Nizam-ul-mulk marched from Haidarabad in 1743 at the head of an overwhelming force, and setting aside the claims of the pretenders Chanda Sahib and Murtaza Ali, appointed Anwar-ud-din to the Government of the province during the minority of the son of Safdar Ali. The young Nawab was, however, assassinated a few years later, and Anwar-ud-din became Nawab of the Carnatic, and was thus the founder of the family which still exists. These remarks will explain the relations which existed between Anwar-ud-din and Chanda Sahib. The former had attached himself to the English, the latter to the French. The former though short-lived transmitted his attachment to the English to his son, Muhammad Ali. The last named ruler was indeed called "the Company's Nawab." Again when Nizam-ul-mulk died in 1748 he was succeeded by his son Nazir Jang; but the title was disputed by Musafir Jang, the son of a deceased elder brother of Nazir Jang. In this also the direct claimant looked to the English, and his opponent looked to the French. The Mahrattas at this time still held supreme power in Tanjore and the adjacent country. The English first in 1749 assisted a claimant to the Mahratta throne of Tanjore, against a relative and were rewarded for ceasing to support this claimant by the cession of the town of Devakottai. Then in the same year the French took up the cause of Chanda Sahib, in alliance with Musafir Jang; the double aim being to secure for these claimants the Nawabship of Arcot and the Subahdari of Haidarabad. Opposed to them were Anwar-ud-din, the then Nawab, and Nazir Jang, the then Nizam, who had just succeeded. Musafir Jang succeeded in securing the throne of the Nizam, and the triumph of the French under Dupleix appeared complete until Clive came upon the scene and to a large extent changed the course of the war. Clive seized Arcot, the capital of the Carnatic, on the 30th August 1751; while Chanda Sahib and the French were besieging Muhammad Ali, the son of Anwar-ud-din recently killed in action, in Trichinopoly. Clive himself was besieged in turn; but repulsed all attacks and followed up his success by the victory of Arni, which virtually placed the Carnatic once more under the ally of the English, Muhammad Ali, although the siege of Trichinopoly was not formally raised until the French detachment, which had retreated to Srīrangam surrendered to Major Lawrence in June 1752. Chanda Sahib surrendered to the Tanjore General who had him executed. Musafir Jang retained the Nizamship, under French protection but for a brief while; he was killed in action with some feudatories, and was succeeded by Salabat Jang, a son of Nizam-ul-mulk, also placed on the throne by the French.

64. A quarrel next broke out between Muhammad Ali and Nanjaraj, the minister of the Raja of Mysore. The assistance of the latter in the recent war had been procured by the Nawab on a promise to cede Trichinopoly if he were victorious; but when he had attained the object of his wishes, he declined to fulfil his agreement. Nanjaraj then joined the French and, though the English at first hesitated to assist the Nawab in such circumstances, the conduct of Nanjaraj in other matters left them no alternative but to treat him as an enemy. A succession of engagements took place, chiefly in the immediate vicinity of Trichinopoly, in which the English were almost uniformly successful but their lack of cavalry prevented their gaining a decisive victory. The recall of Dupleix on the 14th October 1754 led to a cessation of hostilities, but the English continued to aid the Nawab of the Carnatic in the internal management of his dominions; the Nizam, Salabat Jang, receiving similar assistance from the French under Bussy. *1752–1754.*

65. The theatre of action was then for some time transferred to Bengal, where Clive took command of the English army; but hostilities recommenced in Southern India in 1757 as soon as it was known that war had again broken out in Europe between the French and English. The French took advantage of the English forces being dispersed in various expeditions, and made an unsuccessful attack on Trichinopoly; while another detachment succeeded in gaining possession of Vizagapatam. In 1758 a French fleet appeared off Fort St. David, and that fort fell on the 2nd June. Devakōttai was next reduced, and the French commander Lally made a triumphal entry into Pondicherry. But here his success ended. An expedition against Tanjore resulted in complete failure. In December, however, he besieged Madras itself. On the 9th December Colonel Lawrence who commanded the English withdrew all his outposts to the Choultry Plain and on the 12th into the Fort. The attempts made by the English forces in the interior, to assist Madras during this siege, were ineffectual. In fact almost all the English troops were in the Fort. Captain Preston, however, with Muhammad Yusuf, a Muhammadan partizan of the British, made an attack on the French quarters at St. Thomē in January. Owing to the cowardice of the division under Muhammad Yusuf, though he personally made great exertions, this failed, and Preston fell back on Arcot to raise fresh levies. Major Caillaud also came up in February with a detachment from the south, accompanied by some of the Nawab's troops; and on the 7th a sharp engagement took place at the Mount, the French having unsuccessfully attacked Caillaud's position. Caillaud, however, was obliged to fall back on Chingleput. This siege was raised soon after, when an English fleet appeared in the roads. In the meantime the English arms under Colonel Forde were progressing satisfactorily in the Northern circars, whither Clive had sent him with a detachment in order to divert the French, if possible, from their attack upon Madras. His success culminating in the capture of Masulipatam on the 7th April, destroyed the French influence with Nizam, and a tract of territory around Masulipatam extending eighty miles along the coast and twenty miles inland was ceded by him to the English. The operations in the south were of a minor nature until 22nd January 1760, when the French under Lally were completely defeated at Wandiwash, near Arcot, by Colonel Coote who had arrived with reinforcements from England. This was followed by the capture within a fortnight of Gingee and Arcot. Minor forts fell in succession, and by May the English were in a position to lay siege to Pondicherry. Lally then had recourse to the services of Haidar Ali, an adventurer who subsequently usurped supreme power in Mysore, but who at that time merely held high military command under the Raja. An English detachment, sent to meet the Mysoreans, was defeated and the situation of the English might have become critical had not affairs at home recalled the Mysore troops to their own country. Deprived of the aid of the Mysoreans the French cause soon became hopeless and on the 16th January 1761 Pondicherry surrendered. With this event the French power in the Carnatic virtually ended. By the peace of Paris, in 1763, Pondicherry was restored to the French, but with diminished territory. Mahē, Karikal, Chandanagar, and other factories in Bengal, were in like manner restored, but they were not occupied before 1765. *1757–1765.*

The First Mysore War. *1756–1769.*

66. So far as the English were concerned there were no more military operations in Southern India until 1766, beyond granting such aid as was from time to time necessary to enable the Nawab of the Carnatic to repress insurrections. Negotiations were carried on with the Nizam for the cession of the Northern Circars, but with no very satisfactory results; and in 1765 sanads transferring these tracts

to the Company were obtained direct from the Emperor at Delhi whose paramount authority was recognised by the Nizam. The Madras Government however hesitated to avail themselves of the powers thus assigned to them except with his consent; and in 1766, although sending a body of troops to secure their possession, they entered into a treaty with the Nizam, agreeing to pay tribute for the Circars and to defend him against his enemies. In the meantime the Mysore adventurer, Haidar Ali, had succeeded, not only in obtaining supreme power in that province, but also in extending his dominions on all sides; and the English were speedily called on under the treaty to assist the Nizam and the Mahratta in checking his encroachments on their territories. No sooner however had operations commenced than Haidar Ali, by judicious expenditure of treasure, bought off the Mahratta and even induced the Nizam to desert his allies and join him in a descent upon the Carnatic. Colonel Smith, who commanded the English troops, finding himself thus opposed to a force very much larger than his own, commenced a retreat, followed by the allies who overtook him at Chengama. The English repulsed their attack, but were compelled to continue their retreat to Tiruvannāmalai. On being attacked at that place, they obtained a decisive victory, the troops of Haidar and the Nizam retreating in the utmost confusion, while bands of marauding horse, who had been plundering the country up to the very gate of Madras under the command of Haidar's son, Tipu, a boy of seventeen, considered their situation to be no longer secure, and drew off to rejoin the rest of the army. Colonel Smith, however, was too weak to follow up his victory, and withdrew his troops into cantonments for the rains, which were now at hand. Haidar at once took advantage of this inaction to reduce a few unimportant fortresses, but his progress was checked at the hill fort of Ambur, where Captain Calvert, with a garrison of five hundred sepoys and fifteen Europeans, defied the utmost efforts of Haidar's armies for nearly a month, until he was relieved by Colonel Smith on the 7th December 1767. Haidar then drew off and after a few skirmishes he retired above the ghâts, having learned that an expedition from Bombay had captured his fleet in the harbours of Canara and commenced hostile operations in his territories on the Western Coast. Risking an invasion from the east, Haidar hurried over to meet what to him seemed to be the more imminent danger, and appeared suddenly before Mangalore in such force as to compel the re-embarkation of the expedition. In the meantime, though very imperfectly informed of Haidar's actual movements, the Madras Government resolved to commence offensive operation; and one body of troops under Colonel Wood proceeded to reduce the fortresses on the south-eastern slopes of the Ghâts, while another entered Mysore itself under Colonel Smith. The movements of both detachments were at first uniformly successful, but as soon as they had united in August 1768, with the view of attacking Bangalore, Haidar returned from the West Coast and made an attack on the camp of the Mahratta contingent; a movement which though unsuccessful was sufficient to show that it would not be possible to reduce Bangalore unless a decisive victory could be first obtained over Haidar in the field. Various marches and counter-marches were undertaken with this object, but in vain; and after reconquering a number of the fortified places on the tableland, Haidar descended into the low lands by passes unknown to the English, and retook the fortresses in Coimbatore, the Baramahal, and Salem, which in almost all cases had been left inadequately supplied with troops. He did not however risk an engagement in the field with Colonel Smith; and a treaty was concluded on the 4th April 1769 on the basis of a mutual restitution of conquests with the exception of Karur, which was ceded to Haidar on the ground of its being an ancient dependency of Mysore.

The Second Mysore War. *1780-1784.*

67. From the date of this treaty until the year 1780 the military operations in the south of India, other than the usual duties of assisting the Nawab of the Carnatic to keep the peace in his own dominions and in his disputes with the Tanjore Raja, consisted in the capture of Pondicherry from the French in 1778 and the reduction of the French settlement of Mahē on the West Coast in 1779. These events were a consequence of the renewed war in Europe between France and England. Sir Hector Munro was the English commander; and the French Governor was deBellcombe, who made an obstinate defence. The garrison consisted of 3,000 men of whom 900 were Europeans; the besieging army of 10,500 men of whom 1,500 were Europeans. The war which broke out again with Haidar in 1780 arose out of the fact that the Nawab of the Carnatic failed to furnish the

supplies necessary to enable the English to fulfil the stipulations of the treaty of 1769. Haidar succeeded in forming an alliance with the Nizam and the Mahrattas, and descended on the plains of the Carnatic in July 1780 burning crops and devastating villages, so that a cordon of blackened desert was formed around Madras, commencing at the lake of Pulicat, extending some fifty miles inland, and terminating a little to the north of Pondicherry. Sir Hector Munro proceeded to Conjeeveram and directed Colonel Baillie to join him there with troops from the north. Haidar endeavoured to prevent the junction; and Sir Hector Munro seeing that Colonel Baillie was in danger, sent a detachment under Colonel Fletcher to his aid, which successfully eluded the enemy and joined Colonel Baillie on the 9th September, only to be included however in the general massacre which took place when Colonel Baillie's force was attacked by overwhelming number on the following day. Sir Hector Munro considered Conjeeveram no longer tenable when he heard the news of this disaster, and commenced a retreat to Madras which he reached on the 14th September, leaving the field open to Haidar. On receipt of the intelligence at Calcutta the Governor-General, Warren Hastings, suspended John Whitehill, the Governor of Madras, and despatched Sir Eyre Coote with reinforcements. The latter arrived on the 1st November 1780, but was unable to take the field until the 17th January 1781. On the 19th he relieved Chingleput, and on the 21st retook Karunguzhi which had the effect of raising the siege of Wandiwash, a place defended with great distinction by Lieutenant Flint. Hearing of the arrival of a French fleet off Pondicherry, Sir Eyre Coote proceeded to that place, but, finding that the fleet had brought no land forces, he turned his attention to the protection of Cuddalore. Haidar had followed him down the coast, but moved off when the English General offered battle. Thus hampered, the troops remained almost inactive until the 18th June, when an ineffectual attempt was made to capture Chidambaram. The news of this failure emboldened Haidar to make a decisive attempt to annihilate the English army, and he accordingly advanced and took up a position close to Sir Eyre Coote's camp at Porto Novo, a small town on the coast about 14 miles south of Cuddalore. The battle commenced early on the morning of the 1st July 1781, an English fleet lying close in shore in order to take on board the remnant of the army in the event of its being defeated in this encounter with an enemy eight times as numerous as itself. The battle was long and obstinate, but by four o'clock in the afternoon the enemy were in precipitate retreat. The want of cavalry rendered Sir Eyre Coote unable to take full advantage of the victory which he had gained, but he succeeded in again relieving Wandiwash on the 18th July; after which he proceeded northwards and joined a detachment from Bengal at Pulicat, having eluded the force sent to intercept him by adopting a line of march hitherto supposed impassable for troops. Thus reinforced he marched against the fortress of Tiruppasur and procured its surrender on the 22nd August, shortly before Haidar's relieving army appeared on the field. A general action took place on the 27th; but with no very decisive result, though the English kept possession of the field. A month later, on the 27th of September the English commander surprised the enemy near Sholinghur and gained such a victory as put him in a position to throw provisions into Vellore which had been besieged from the commencement of the war. In November the English army retired for the rainy season to Madras, where it remained until the following January, when it had once more to advance to the relief of Vellore. Haidar then turned his attention to Cuddalore, and succeeded in reducing it with the assistance of a French contingent which had landed at Porto Novo. The reduction of Perumakovil by Haidar followed, but Sir Eyre Coote once more arrived in time to save Wandiwash. In the meantime war had broken out with the Dutch as well as with the French, and the Dutch settlements of Sadras, Pulicat and Negapatam had been captured. A portion of the force employed for the reduction of the latter place was subsequently detached under Colonel Brathwaite to operate in Tanjore. Deceived by spies, the small force was suddenly surrounded by superior numbers under Haidar's son, Tipu, and only a small remnant escaped with their lives. To counterbalance this, a rebellion had broken out in Malabar and a small force of English sent to their aid gained a considerable victory at Tellicherry, which necessitated the immediate despatch of Tipu to the West Coast; and Haidar Ali, considering himself overmatched by Sir Eyre Coote, determined to quit the Coromandel Coast. The English commander then returned with his army to Madras, and General Stuart assumed the command in his place. The English force on the West Coast was scarcely strong enough

successfully to oppose that brought against it, but the news of the death of Haidar at Chittoor on the 7th December 1782 led to Tipu's speedy return to the head-quarters of the principal army, thereby leaving the field open to the English, who were shortly afterwards reinforced by a considerable number of troops from Bombay under General Matthews. Several places on the coast fell in rapid succession, and eventually the English penetrated to Bednor above the Ghâts. Here, however, their success ended, Tipu returning and compelling the surrender of the place on the 3rd May. After this he marched to the siege of Mangalore, where a small fort was occupied by Colonel Campbell. The garrison of this place was insignificant and the material defences of the place equally so, but Tipu was unable to take it by assault and his large army remained for many months practically inactive, while his French allies under Bussy were being besieged in Cuddalore. On the receipt of the news of the conclusion of peace between France and England, an armistice was agreed upon under which Tipu was bound to provision the garrison of Mangalore. He, however, supplied provisions which were unfit for consumption, and the garrison, broken down by famine and sickness, capitulated on the 30th January 1784, the health of the commander being so undermined that he expired on the 23rd March following. After much delay, peace was ultimately concluded on the 10th March on the basis of a mutual restoration of conquests. During this war many of the English prisoners, including General Matthews, were put to death by Tipu.

The Third and Fourth Mysore Wars.
1791—1799.

68. After the conclusion of peace with the English, Tipu seized about thirty thousand of the Christians of Canara, forcibly converted them to Muhammadanism, and deported them to the country above the Ghâts. Subsequently, rebellions of the Nayars of Malabar on account of a similar exercise of religious zeal in that portion of his territory led to expeditions for their suppression; and many of the Nayars having taken refuge in Travancore, Tipu resolved to invade that country in their pursuit notwithstanding an intimation that such a proceeding would involve him in another war with the English. His first attempt to enter Travancore ended in failure. A second was more successful, and the country was overrun; but, on his return to Coimbatore, Tipu found an English army in the field at Trichinopoly under the command of General Medows, the Governor of Madras, who had also entered into alliances with the Mahrattas and the Nizam. Tipu at first withdrew to Seringapatam, which he had established as the capital of his dominions; and the English met with little opposition in the reduction of the various forts along the south-eastern slopes of the Ghâts until the 7th September, when their army was attacked by a force commanded by Tipu in person, which had descended by the Gejalhatti pass. The attack was repulsed, but General Medows' efforts to bring on a general action were evaded by Tipu; and nothing but indecisive skirmishes took place, until the Governor-General, Lord Cornwallis, took the field in person, and, assuming the command on the 29th January 1791, at once commenced preparations for a march upon Bangalore, concentrating his army at Vellore. Tipu hastened to intercept his advance which he expected would be made by the passes near Ambur; but the demonstration in that direction was a feint, and the tableland was reached by the more northerly pass of Mugli without a shot being fired. The pettah or town of Bangalore fell early in March, and on the night of the 20th the fort was taken by assault after a severe contest of a little over an hour. While these operations were going on in Mysore, Colonel Hartly from the Madras side had defeated the Sultan's troops near Calicut; and General Abercrombie, Governor of Bombay, had landed at Tellicherry with a considerable force, and reduced Cannanore without encountering much opposition. But little difficulty was met with in the operations in that neighbourhood and within a very short time the whole of Malabar was in the occupation of the English. Operations on a smaller scale were conducted in the north in concert with the Mahrattas and the Nizam, the latter having also despatched a body of about ten thousand horse to join Lord Cornwallis' army.

69. On the 4th of May the English army left Bangalore to march against Seringapatam; but the route was so difficult, the means of transport were so limited, and the devastation of the country by Tipu had been so well carried out, that notwithstanding a successful engagement at Arakere only nine miles from Seringapatam, Lord Cornwallis was compelled to abandon his plan of operations for the time and retire to the vicinity of Bangalore, where he occupied himself for some time in reducing the hill forts. The Nizam's troops and the Mahrattas having marched from the north and reinforced his army with both men and supplies, Lord

Cornwallis again appeared before the walls of Seringapatam on the 5th February 1792. On the night of the 6th, the outlying encampment and redoubts were carried and the city closely invested on two sides. Preparations were made for the vigorous conduct of the siege, and on the 16th the army was joined by that of General Abercrombie from Malabar. A few days previously Tipu had made overtures for peace; but the negotiations did not lead to a cessation of preparations for the siege, and the fall of Seringapatam was close at hand when on the 24th February orders were issued for the discontinuance of all hostilities. Peace had been agreed upon on the basis of a cession to the allies of one-half of the dominions of which Tipu was in possession before the war, the payment of three crores and thirty lakhs of rupees, and the restitution of all prisoners including those detained from the time of Haidar. Under this treaty the English came into possession of the Baramahal, Dindigul, Malabar and Coorg; the latter being restored to the Raja who had rendered essential aid to the English in the course of the war.

70. Though thus much weakened, Tipu was not rendered completely powerless. He lost no time in commencing a series of intrigues with the view of engaging to his side those who had been the allies of the English and even despatched an embassy to Paris asking for the assistance of the French. His overtures being rejected by Louis XVI he renewed them after the Revolution had broken out, and a contingent of ninety-nine men from Mauritius landed at Mangalore in 1798. The aid thus received was insignificant, but the object in applying for it was manifest; and the Governor-General, Lord Mornington, resolved to act at once rather than wait till Tipu had matured his plans. Instructions were despatched for the immediate adoption of such measures as were necessary to place the Madras army on a satisfactory footing, and an alliance was entered into with the Nizam. The object of the Governor-General was to obtain possession of the maritime territory still under Tipu, and thus preclude him from communication with the French; and before commencing the war an opportunity was afforded him of averting it by timely concession. But the efforts at negotiation were ineffectual, and offensive operations were determined on. The army of the Carnatic was placed under the command of General Harris, while another force from Malabar under General Stuart ascended into Coorg early in March 1799. Tipu directed his first efforts against this latter army, but was beaten at Siddheswar near Periyapatna, and in the meantime General Harris and the Nizam's troops crossed the Mysore frontier. Tipu turned to meet them, and was defeated with severe loss in a general action at Malavalli on the 27th March. He then retired to Seringapatam, and the allies advanced to the siege, which lasted for a month before a practicable breach was made. The assault commenced at one o'clock on the 4th May, and before evening Tipu was dead, and the whole town was in the possession of the English. The dynasty of Haidar and Tipu having been thus overthrown the settlement of the country was effected by the restoration of Mysore proper to the representative of the ancient ruling family whose rights had been usurped by Haidar. The greater part of the remainder was then divided between the English and the Nizam, the districts of Canara, Coimbatore and Wynaad falling to the share of the former. A portion was also reserved for the Peshwa, with the view to its forming a basis for a new treaty with the Mahratta empire. Arrangements were at the same time made by which Mysore should be precluded from again becoming a great military power, and it was stipulated that the heads of all the passes on the tableland should remain permanently in the hands of the British.

Summary of acquisitions made in different parts of the Presidency.

71. The military history of the Madras Presidency ceases with the treaty of 1799; all subsequent additions of territory, with one exception, having been peacefully acquired. The following is a brief summary of all the territorial acquisitions made in the south. A trading settlement was established at Masulipatam in 1611 and in 1639 and in 1690 Fort St. George and St. David were built at Madras and Tevanapatam respectively by the permission of the ruling Hindu princes. The fort of Tellicherry in Malabar was similarly established by the Bombay Government in 1683. The first footing in Tanjore was gained in 1749 by the capture of Dēvakōttai which was afterwards ceded on condition that the English desisted from helping a rival claimant to the throne. Mirzapha Jang and Salabat Jang had ceded Masulipatam and portions of the Northern Circars to the French; but, on the capture of Masulipatam by the English in 1759, the

influence of the French was broken, and the town of Masulipatam and a considerable tract of the surrounding territory was made over to the English. In 1765 sanads ceding the whole of the Northern Circars were obtained direct from the Padshah of Delhi, but the Madras Government thought it more politic to obtain the consent of the Nizam also and in 1768 the five circars of Ellore, Chicacole, Rajahmundry, Mustafanagar, and Murtuzanagar or Guntūr were ceded by treaty, on the English agreeing to pay an annual subsidy of nine lakhs, and to furnish military assistance when required. The Dutch settlements of Pulicat, Sadras and Negapatam were captured for the second and last time in 1795, and ceded by the series of treaties closing the Napoleonic wars. The earlier wars with Haidar and Tipu were concluded with a peace on the basis of mutual restitution of territory, but by the treaty of 1792 the districts of Malabar and Salem and the Dindigul division of Madura were acquired by the English, and on the partition of Tipu's territory in 1799 the districts of Canara and Coimbatore fell to the share of the British Government. During the wars of the eighteenth century the English more than once interfered in the disputes between the Raja of Tanjore and the Nawab of the Carnatic, and in 1778 a treaty was concluded by which Nagore and 277 villages were ceded to the Company. The internal affairs of the Tanjore kingdom continued to go from bad to worse, and after a turbulent period of disputed succession the rightful claimant to the throne, on being put into power in 1799 executed a treaty resigning the administration of the kingdom into the hands of the British on the understanding that he would receive a provision of one lakh of pagodas and one-fifth of the net revenues. The titular dignity became extinct in 1855 through failure of male heirs. In 1800 a new treaty was entered into with the Nizam by which a considerable increase was made in the British subsidiary force, on account of which the Nizam ceded all the territories he had acquired by the Mysore treaties of 1792 and 1799 together with the taluk of Adōni and all other taluks situated to the south of the rivers Tungabhadra and Kistna. These are known by the name of the Ceded districts, and comprise the provinces of Bellary, Anantapur and Cuddapah. The English having in all the earlier wars of the peninsula supported the cause of Muhammad Ali, Nawab of the Carnatic, and having in fact secured him both the original possession of his kingdom and the power of retaining it, the revenues of the Carnatic were looked to for the defrayal of the expenses of the wars, and with this view the present district of Chingleput then known as the jaghir, was made over to the Company in 1763. This was rented to the Nawab for some time, but in 1780 the British Government took the management into their own hands. As new wars arose fresh agreements were made, and a series of treaties were executed culminating in that of 1792, three years before the death of Muhammad Ali and the accession of Umdat-ul-Umra, by which the Nawab agreed to pay a large subsidy, and, in order to secure punctual payment the English were authorized to collect tribute direct from a large number of the palegars or local chiefs. In the event of the balance not being paid, the English were further authorized to assume the management of certain specified districts. In accordance with this treaty tribute was collected throughout a great part of the Tinnevelly and Madura districts, and in 1795 the Company assumed the entire management of the Rāmnād district. On the fall of Seringapatam in 1799 it was discovered that both Muhammad Ali and Umdat-ul-Umra had been carrying on a treasonable correspondence with Mysore and the treaty of 1792 having thus been infringed the British Government resolved to assume the entire management of the Carnatic, and proposed a treaty for the purpose. Umdat-ul-Umra having died before arrangements were concluded, and his reputed son Ali Husain having rejected the terms offered him, another grandson of Muhammad Ali named Azim-ud-Daula was declared his successor, and an arrangement was entered into on the 31st July 1801, by which he resigned the Government of the country into the hands of the British, retaining the titular dignity and receiving a liberal stipend. The effect of this treaty was to bring under British rule the whole of the country from the Northern Circars to Cape Comorin, with the exception of the French settlements of Pondicherry and Karikal and the Danish settlement of Tranquebar. The titular dignity of Nawab of the Carnatic was continued until 1855 when there was a failure of direct heirs. The present representative of the family bears the title of Prince of Arcot, and has the position of the first Muhammadan nobleman of the Presidency. In 1838 internal mismanagement and suspicion of treasonable intrigue on the part of the Nawab of Kurnool led to the

occupation of his territory by an armed force and to its subsequent annexation. Tranquebar was ceded by the Danes in 1845. The district of North Canara was transferred from this Presidency to the Bombay Presidency in 1862.

Recent Events.

72. Since the beginning of the nineteenth century, Madras has known no regular war ; but occasional disturbances have called for measures of military repression. The pālegārs or local chieftains in the south long adhered to their independence after their country was ceded to the British. On the West Coast, the feudal aristocracy of the Nayars and the religious fanaticism of the Mappillas have more than once led to rebellion and bloodshed. In the extreme north, the wild tribes occupying the hills of Ganjām and Vizagapatam only in recent times learned the habit of subordination. In 1836, the zamindari of Gumsūr in this remote tract was attached by Government for the rebellious conduct of the chief. An inquiry then instituted revealed the wide prevalence among the tribe of Khonds of human sacrifice, under the name of meriah. The practice was subsequently suppressed by a special agency. In 1879 the country round Rampa on the northern frontier was the scene of riots sufficiently serious to lead to the necessity of calling out troops. The same necessity arose three years later when the Hindus and Muhammadans of Salem came into collision in connection with a question of religious ceremonials. A more serious disturbance was that known as the "Anti-Shanar Riots" of 1899. The Maravas of Tinnevelly and parts of Madura, resenting the pretensions of the Shanars—a toddy-drawing caste—to a higher social and religious status, organised attacks on Shanar villages. The town of Sivakasi was looted and burnt by five thousand Maravas. Quiet was restored by the Military, and a punitive police force was stationed in the area of disturbance. There was a riot at Villupuram in the South Arcot district in 1907 and two others occurred at Nambuthalai in the Madura district and Pamidi in the Anantapur district. Early in 1909 another riot took place in the Guntūr district in connection with the Sivaratri festival at Kottappakonda. Several police officers, including the Superintendent, were severely wounded by the rioters. In 1911 a religious riot broke out at Tiruppattūr, Salem district, during the Moharram and peace was restored only after the Volunteers were called out. The latter part of the last decade has been marked by manifestations of political unrest exhibiting itself in campaigns of sedition and disloyalty which assumed serious proportions during the passage through this Presidency of a political agitator from Bengal in April 1906. The students of the Rajahmundry College broke into open revolt that year against the College authorities and seceded from the institution to the number of nearly two hundred. In 1907 the European Club at Cocanada was attacked by a large mob which caused considerable damage to property. In 1908 strikes broke out among the mill operatives in Tuticorin and in Tinnevelly, and the mob invaded the C.M.S. College and the Munsif's Court, burnt the municipal office, a police station and part of the post office and destroyed some furniture in the hospital. At Tuticorin the Divisional Officer and the Police were assaulted by the mob. A force of punitive police was quartered in the principal centres of agitation for six months. The year 1909 was marked by the appearance for the first time in this Presidency of the anarchist's bomb. About a mile from Tenali in the Guntūr district an infernal machine buried in a public path way exploded and killed a cooly who trod upon it. The anarchist movement, thus begun, and fed by mischievous and inflammatory writings in the public press, culminated in June 1911, in a grievous outrage at Maniyachi in Tinnevelly—the murder of Mr. R. W. D'E. Ashe, the Collector of the district.

FORM OF ADMINISTRATION.

The Governor in Council.

3 & 4 Will. 4, c. 85. ss. 56, 57. India Act X of 1897, s. 3 (29). 33 Geo. 3, c. 52, s. 25. 53 Geo. 3, c. 155, s 82. 33 Geo. 3, c. 52, s. 33 21 & 22 Vic., c. 106, s 29. 32 & 33 Vic., c. 97, s. 8. 3 & 4 Will. 4, c. 85, s. 79. 24 & 25 Vic., c. 67, s. 26. 3 & 4 Will. 4, c. 85, ss. 61, 63. 24 & 25 Vic., c. 67, s. 27. 24 & 25 Vic., c. 67, s. 28. 33 Geo. 3, c. 52, ss. 47, 48.

73. The executive civil Government of the Madras Presidency is administered by "the Governor in Council" subject to the superintendence and control of the Governor-General in Council. By the term "Local Government" is meant the Governor in Council. The Council includes the Governor and three ordinary civil members, one of whom is an Indian. Two at least of the members must at the time of appointment have been in the service of the Crown in India for at least twelve years. The Commander-in-Chief in India is a Member of Council if and while he is resident at the Presidency of Fort St. George. If at any meeting of the Council there is an equality of votes on any question, the Governor or other presiding member has the casting-vote. The Governor and the ordinary Members of Council are appointed by the Crown. The terms for which they may hold office are not limited by any legal enactment, but any Governor or Member of Council who returns to Europe or leaves India with intent to return to Europe is considered to have resigned his office. The Secretary of State has directed that a Member of Council should hold office for five years exclusive of any time during which he draws less than full pay, not having himself been granted leave. The Governor in Council may grant an ordinary Member of Council leave of absence, under medical certificate, for a period not exceeding six months. On the occurrence of a vacancy in the office of Governor, the Secretary of State may make a provisional appointment, subject to the approval of the Crown; if the vacancy occurs when no provisional or other successor is on the spot, the senior civil Member of Council assumes office as acting Governor. If a vacancy occurs in the office of ordinary Member of Council and no person provisionally appointed to succeed thereto is on the spot, it may be filled by the Governor in Council by the appointment as temporary member of any person qualified for appointment as an ordinary member. The Governor may issue rules and orders regulating the conduct of business in the Council. The Governor can in the circumstances stated in 33 Geo. 3, c. 52, sec. 47, issue orders which are not in consonance with the opinions expressed by the majority of his Council. The Governor in Council is not empowered to declare war or to make treaties and has no immediate control over the military administration of the Presidency. He corresponds directly with the Secretary of State except in certain cases. The powers of the Governor are not affected by the presence of the Governor-General in the Presidency. The Governor in Council is empowered to undertake works of public utility, not being railways, which are not expected to cost more than 10 lakhs or 12½ lakhs including the cost of establishment, tools and plant. The Governor in Council possesses all the civil patronage of the Presidency which is not retained by the Secretary of State or delegated to subordinate members of the administration. The Governor and the ordinary Members of Council make official tours from time to time in order personally to acquire accurate knowledge regarding the people and their administrative needs. Despatches to the Secretary of State are signed by all the Members of Council, but letters addressed to the Government of India and all orders of the Governor in Council are signed by an officer of the Secretariat. Similarly all correspondence regarding public business reaches Government through the Secretariat.

The Legislative Council.

74. The Legislative Council is fully dealt with in chapter III.

Financial Transactions of Government.

75. The financial transactions of Government are now recorded under two distinct divisions—Imperial and Provincial. These divisions comprise the transactions which may be said to belong to the general functions of Government either because they concern the business of general administration, such as the management of the Revenue, charges of Law and Justice, or the maintenance of the Army; or because they involve large State monopolies or quasi-monopolies like the Post Office, the Telegraph, or Railways. The Government accounts formerly included a third section, relating to a group of funds, known as "incorporated" local funds which are raised locally (to a large extent in the shape of rates on land), devoted mainly to local purposes and managed, in the most important cases at least, by local bodies. On the principle that the Imperial and Provincial Government budgets should deal solely with the receipts and expenditure of the general administration and not with revenues derived from special sources in limited areas and devoted under

local control to special purposes and in order not to obscure the real extent of the Government's transactions the section relating to "Local" finance was completely separated from the public accounts with effect from 1st April 1908.

Provincial settlement.

76. All items of receipts and expenditure which are creditable or debitable to Government are either Imperial or Provincial according as they appertain to the Supreme or to the Local Government. This classification has no statutory basis and depends upon the terms of the Provincial settlement by which is designated the administrative arrangement made between the Government of India and the Local Government and approved by the Secretary of State for the distribution of revenues and expenditure between the two Governments. The institution of the system known as the "Provincial settlement" represents an attempt to solve a problem which must always arise where there exists a Local Government in complete or partial subordination to a central authority. Certain classes of expenditure must obviously be left to the subordinate authority, while other services can be satisfactorily administered by the Central Government alone. Both these bodies require to be kept in funds. In India, where the great bulk of the revenues of the country is collected and credited in the accounts of the various Provinces the problem resolves itself into the question how the Central Government can best be supplied with resources to meet the charges of the services which it must of necessity administer. The Provincial settlements represent a method of attaining this object, which has been evolved by diverse and protracted experiment. To meet their own expenditure, the Government of India retain in the first place the entire profits of the commercial departments, and secondly all the revenue whose *locale* is no guide to its true incidence, such as the net receipts from Customs, Salt and Opium. The income derived from these sources is, however, insufficient to cover the cost of the Imperial Services, and an arrangement had, therefore, to be made by which the other sources of revenue should be distributed between the Central and the various Provincial Governments. In the earlier stages the Provincial Settlements took a semi-contractual shape as a separate settlement or agreement, concluded by the Government of India with each individual province. This arrangement, known as a "Provincial Contract," was subject to periodical, usually quinquennial, revision. The year 1904 witnessed an important new departure, viz., the initiation of the system of quasi-permanent settlements. Under these the revenues assigned to a Provincial Government were definitely fixed and were not subject to alteration by the Government of India save in the case of grave Imperial necessity, or in the event of experience proving the assignment made to have been materially disproportionate to normal Provincial requirements. The general principles which underlay these financial settlements were as follows:—

(*a*) That the Government of India should retain certain administrative services which it was inexpedient to transfer to Provincial Governments, and that they should reserve the revenue from those services, and such a share of the other public revenues as might be adequate to the expenditure falling upon them.

(*b*) That, the remaining administrative services of the country being entrusted to Provincial Governments, each Local Government should receive an assured income which would be independent of the needs of the Government of India and sufficient for its normal expenditure.

(*c*) That this income should be given in the form of a defined share of the revenue which the Local Government collected, in order that the Local Government's resources might expand along with the needs of its administration.

(*d*) That, so far as possible, the same share of the chief sources of revenue should be given to each province to insure a reasonable equality of treatment.

Effects of quasi-permanent Provincial settlements.

77. The object of making Provincial settlements quasi-permanent was to give the Local Governments a more independent position, and a more substantial and enduring interest in the management of their resources than had previously been possible. Under the previous system, when settlements were revised every five years, it was the practice for the Imperial Government to resume the surplus of the Local Government's revenue over its expenditure. This unfortunate necessity (which was largely the result of severe financial pressure on the Government of

India during the years of low exchange) went far to destroy any incentive in a Local Government to economise, as it knew that its reduced standard of expenditure would be the basis for a correspondingly unfavourable settlement at the next revision. All this disappeared under the revised system. A Local Government did not need to fear, in any except very abnormal circumstances, the resumption of its surplus revenue by the Imperial Government; it could count upon a reasonable continuity of financial policy; it would be able to enjoy fully the fruits of its economies, and it would not be hurried into ill-considered proposals in order to raise its apparent standard of expenditure. On the other hand, the Imperial Government improved its relations with the Local Government by avoiding five-yearly controversies over the settlement; it could calculate its own resources with more confidence, and could undertake reductions of taxation or fresh schemes of expenditure with a clearer knowledge of the consequences than was formerly possible.

Permanent Provincial settlements.

78. The changes made in 1911 have placed the settlement on a permanent basis and the introduction of this element of fixity marks a decided advance in the path of decentralization. Certain growing sources of revenue have been placed once for all at the disposal of the Local Government from which to meet the future needs of the province administered by them and it is now for the Local Government to husband their resources and lay them out to the best economical advantage. The new arrangements have placed a greater responsibility on the Local Governments for the stability of the Provincial finances while at the same time investing them with wider independence. The following rules govern the relations of Provincial and Imperial finance :—

(1) In case of serious famine in a province, the question of assistance from the revenues of the Government of India will be considered. The Government of India reserve the right to call for assistance from Provincial revenues in the event of grave embarrassment in their own finances.

(2) When the fixed assignment of a province becomes unduly large and hampers the expansion of its revenue, as compared with the legitimate and necessary growth of expenditure, it will ordinarily be converted, either in whole or in part, into a share of growing revenues as soon as the state of the Imperial finances permits.

(3) In the event of the grant of special allotments to Local Governments out of surplus revenues not required for the remission of taxation, the reduction of debt, or other purposes, the Government of India will retain the option of declaring the purposes for which the money is provided, but (*a*) the grants will not involve greater interference by the Central Government than at present exists; (*b*) they will be allotted with due regard to the wishes of the recipient Government; and (*c*) they need not necessarily be devoted to one and the same purpose in every province.

(4) A Local Government may not budget for a deficit, unless they satisfy the Government of India that the excess expenditure is due to an exceptional and non-recurring cause, and also, if the deficit involves a reduction of the Provincial balance below the prescribed minimum (20 lakhs), that suitable arrangements will be made for the restoration of the minimum.

(5) If a Local Government exhaust their own balances and receive permission to overdraw upon the general balances, they will be required to take the necessary amount as a short loan from the Government of India. The loan will bear interest and will be repayable in such instalments as the Central Government may direct.

(6) Future corrections in Provincial budgets by the Government of India will be restricted to (*a*) divided heads, and (*b*) the proposed totals of revenue and expenditure.

Famine finance.

79. The financing of Famine expenditure had, prior to 1st April 1907, been on no satisfactory basis. The liability for famine relief was Provincial unless and until the resources of the Local Government became so reduced that the financial assistance of the Government of India became necessary. In 1907 a scheme was introduced with regard to the apportionment of famine expenditure between Imperial and Provincial funds under which Provincial funds are credited annually

with a fixed sum of Rs. 2·50 lakhs subject to a maximum reserve of Rs. 25 lakhs After this limit has been reached, the annual assignment will cease until the credit balance is reduced by actual famine expenditure. When famine occurs, the expenditure on famine relief will be charged against the balance standing to the credit of the Local Government in the *pro forma* account. Should the expenditure exceed this amount, the excess will be charged to Imperial and Provincial in equal shares. If during a prolonged famine the Provincial share of expenditure thus limited should be so great as to reduce the Provincial balance below one-half of the prescribed minimum of 20 lakhs, the treatment of further famine expenditure will be a subject for special arrangement by the Government of India at the time. The possibility of famine constitutes a danger to the settlement contracts against which it is impossible to provide adequate safeguards. The famine insurance scheme is a convenient device for distributing the expenditure on famine in its earlier stages, or on a partial scarcity; but a really widespread calamity would sweep it away and leave the Provinces dependent in a large measure upon the bounty of the Imperial Government. In a crisis of this kind the Government of India will of necessity intervene and supplement the Provincial resources, as it has done in the past, and the contract obligations will, for the time being, remain partially in suspense.

Classification of revenue and expenditure.

80. Under the terms of the Provincial settlement now in force, the revenue credited to Provincial funds includes the whole revenue derived from Forests, Registration, Interest from Provincial Loans and Advances, Law and Justice, Courts of Law, Jails, Police, Education, Medical, Scientific and other Minor Departments, Minor Works and Navigation, Civil Works (except receipts from Imperial buildings), that derived from certain minor heads included under Receipts in aid of Superannuation, Stationery and Printing, and from Miscellaneous (including extraordinary items not exceeding Rs. 10,000) except a few minor heads; and half the revenue derived from Major Irrigation Works, Assessed Taxes, Excise, Stamps, and Land Revenue. The last item is by far the most important source of revenue and the Government of India in order to steady the receipts of this Presidency have guaranteed Rs. 308 lakhs as its minimum share of land revenue (including the portion credited to irrigation) and any deficit in a particular year will be made good from Imperial resources. On the other hand the Provincial Government has been made responsible for the whole expenditure on Land Revenue, Forests, Registration, Interest on Provincial Advance and Loan Account, General Administration (except Account Office—Imperial Branch, Currency Department, Reserve Treasury and Allowances to Presidency Banks), Law and Justice, Courts of Law and Jails, Police, Ports and Pilotage, Education, Medical, Political (except Refugees and State Prisoners and Miscellaneous), Scientific and other Minor Departments (except Census, Ethnographic Survey and pay and allowances of officers on the cadre of the Civil Veterinary Department), certain minor heads under Superannuation Allowances and Pension, Stationery and Printing (except stationery purchased for Central Stores), Miscellaneous (including certain minor heads and items not exceeding Rs. 10,000), Minor Works and Navigation, and Civil Works (except expenditure on buildings for the use of the Imperial Department); for a half share of the expenditure on Stamps, Excise, Assessed Taxes, and Irrigation—Major Works; and the same share as in the corresponding receipts on Refunds and Drawbacks and Assignments and Compensations. The incidence of famine expenditure will be regulated by the rules referred to in the preceding paragraph.

Fixed assignment.

81. According to the quasi-permanent settlement of 1904 the amount of the growing revenues assigned to the Madras Government fell short of the estimated cost of the Provincial services by no less than Rs. 59·66 lakhs which was made up by a fixed assignment from Imperial. In succeeding years this fixed assignment grew to the very large sum of Rs. 150 lakhs which was a third of the gross Provincial receipts. This undesirable state of affairs was remedied in 1908 when the Settlement of 1904 was revised in the direction of giving the Presidency a share of growing revenues equal to the cost of the assigned services, the scope of which was also somewhat expanded. As a result of this modification the share of the assigned revenue was now slightly in excess of Provincial needs and the former large fixed assignment from Imperial to Provincial was converted into a fixed assignment from Provincial to Imperial of Rs. 22·57 lakhs. The introduction of changes in connection with the Provincial settlement which came into force on 1st April 1911, and the merging in the fixed assignment of certain recurring assignments payable

from Imperial to Provincial funds have rendered the adjustment of the figure necessary and it stands at Rs. 18·09 lakhs in the budget for the year 1912_1913.

Revenue in 1911-1912.

82. The principal sources of revenue and the objects on which Provincial funds are expended can be learnt from an examination of the Provincial accounts in any recent year. The total revenue (excluding opening balance) received during the financial year 1st April 1911 to 31st March 1912 amounted to Rs. 1,482·70 lakhs, of which the amounts credited to Imperial and Provincial were respectively Rs. 781·90 and 700·80 lakhs. The amount expended from Provincial funds was Rs. 671·52 lakhs, leaving a surplus of Rs. 29·28 lakhs. More than a third of the total revenue and about one-half of the Provincial revenue was derived from Land Revenue which amounted to Rs. 565·02 lakhs (Rs. 254·12 lakhs Imperial and Rs. 310·90 lakhs Provincial). The next most important source of revenue was Excise which yielded Rs. 300·64 lakhs, of which a half share was Provincial. Other important items of revenue were Salt Rs. 107·49 lakhs (wholly Imperial); Stamps Rs. 127·25 lakhs (divided equally between Imperial and Provincial); Customs Rs. 79·70 lakhs (wholly Imperial); Assessed Taxes Rs. 32·07 lakhs (Imperial share Rs. 16·04 lakhs; Provincial share Rs. 16·03 lakhs); Forests Rs. 41·66 lakhs (wholly Provincial); Registration Rs. 20·58 lakhs (Provincial); Tributes from Native States Rs. 44·97 lakhs (wholly Imperial); Irrigation—Direct and Indirect receipts Rs. 107·38 lakhs (divided equally between Imperial and Provincial).

Expenditure in 1911-1912.

83. The principal items of expenditure were Land Revenue Rs. 129·41 lakhs (Provincial); Salt Rs. 17·30 lakhs (wholly Imperial); Forests Rs. 34·15 lakhs (Provincial); Registration Rs. 12·48 lakhs (Provincial); General Administration Rs. 22·66 lakhs (Imperial share Rs. 4·41 lakhs and Provincial share Rs. 18·25 lakhs); Courts of Law Rs. 62·19 lakhs; Jails Rs. 14·03 lakhs; Police Rs. 84·56 lakhs; Education Rs. 45·66 lakhs; Medical Rs. 17·98 lakhs; Scientific and other Minor Departments Rs. 15·20 lakhs (of which Rs. 1·93 was Imperial and Rs. 13·27 Provincial); Superannuation Allowances and Pensions Rs. 26·26 lakhs (of which Rs. 0·28 was Imperial and Rs. 25·98 Provincial); Stationery and Printing Rs. 21·28 lakhs (5·74 Imperial and 15·54 Provincial); Irrigation—Major Works Rs. 50·32 lakhs (divided equally between Imperial and Provincial); Minor Works and Navigation Rs. 35·62 lakhs; and Civil Works Rs. 110·44 lakhs.

Budget Procedure.

84. The procedure in connection with the framing of Provincial budgets has, in consequence of the introduction of constitutional reforms, been altered since 1910–1911. According to the altered procedure the whole "Draft Financial Statement" (the first edition of the budget for the ensuing year) is laid in January of each year before the Finance Committee, which is constituted under the rules framed under the Indian Councils Act, for consideration and submission of a report to Government indicating the changes which the Committee recommends. The next stage is the presentation to the Legislative Council of the "Revised Financial Statement" (second edition of the budget), prepared after considering the proposals of the Finance Committee and any changes in the financial situation justifying alteration of figures. Members may then move specific resolutions which may be put to the vote. Lastly about the beginning of April the final edition of the budget is presented to the Council, when the members are at liberty to offer any observations on the budget but not to move any resolution.

Financial restrictions on the powers of the Government of India and the Local Government.

85. The control of the Local Government over the funds at their disposal is limited by certain rules which prescribe that the sanction of the Secretary of State or of the Governor-General in Council, as the case may be, is necessary before expenditure can be incurred on certain accounts. Thus the sanction of the Secretary of State is necessary to the creation of any permanent appointment, which would ordinarily be held by a gazetted civil officer recruited in England, and to the raising of the pay of such an appointment to more than Rs. 750 per mensem; to the creation of a permanent appointment, not of the class specified above, of which the salary exceeds Rs. 800 a month; to the raising of the salary of an officer, or of a sanctioned permanent appointment, not of the class specified above, to an amount in excess of Rs. 800 a month, or to the increase of a salary which is already in excess of that amount; to the temporary appointment or deputation of an officer on a salary exceeding Rs. 50,000 a year, unless such officer has a lien on an appointment carrying a salary of equal or higher value fixed by statute; to a temporary appointment or deputation carrying a salary of more than Rs. 800 but less than Rs. 4,166$\frac{2}{3}$ a month, when such appointment or deputation is expected to last or does last for

more than two years; to the grant of extra remuneration to an officer for specially meritorious work not falling outside the course of his ordinary duties, if the amount of the honorarium exceeds Rs. 1,000; to revisions of permanent establishments which involve additional expenditure of more than Rs. 50,000 a year; and to all orders involving expenditure for which the Civil Service Regulations or other authorised code specially declare the sanction of the Secretary of State in Council to be necessary. The powers of the Local Government are similarly restricted. Without the previous sanction of the Government of India, no additional taxation may be imposed, and no change may be made in any existing system of revenue management. As regards expenditure the Local Government could not till recently sanction, without the previous consent of the Government of India, any charges of a permanent nature to be paid from Imperial funds or any Imperial charge involving a debit against the following year's grant. In respect of charges falling wholly or partly on Provincial revenues no permanent appointment could be created with a pay of more than Rs. 250 a month, no addition could be made to the pay and allowances of any officer if they exceeded or would, after the addition, have exceeded Rs. 250 a month, no such appointment could be abolished or its pay and allowances reduced, no temporary appointment or deputation involving the payment of more than Rs. 250 a month could be sanctioned for a period exceeding six months, no class or grade of officers could be created or abolished or their pay raised or reduced and no revision of permanent establishments involving an additional expenditure of more than Rs. 25,000 per annum could be sanctioned, etc. With reference to to the recommendations of the Royal Commission on Decentralization, the Government of India have recently sanctioned, with the Secretary of State's approval, the delegation of enhanced powers to Local Governments in respect of the creation of appointments, deputations, revisions of establishments and the grant of fees, rewards and honoraria. The main features of the delegation are that, subject to specified conditions, the limit of Rs. 250 per mensem on the powers of Local Governments to create appointments paid wholly or partly from Provincial revenues has been raised to Rs. 800 a month and the limit of Rs. 25,000 per annum for revision of permanent establishments paid from the same source has been raised to Rs. 50,000 a year. It is the duty of the Accountant-General to advise the Local Government if he is of opinion that they have exceeded their financial powers. The Madras Government have delegated to the authorities subordinate to them various minor financial powers which, without impairing control as to matters of essential importance, have tended to the reduction of correspondence of a routine character.

Petitions.

86. The recognised privilege, under which a person aggrieved by the action of any Government official may ordinarily appeal to the next higher authority by means of a petition and receive back a written reply, either refusing or promising redress, is of much importance in all branches of the administration, but especially in matters dealing with the land revenue, owing to the number of small holdings of land under the ryotwari tenure and the consequent multiplication of details in the administration of the land revenue. An aggrieved person may generally appeal in succession to the officers representing each grade in the department concerned, and may finally address in turn the local Government, the Government of India and the Secretary of State. The three last named authorities have prescribed certain rules to check the indiscriminate presentation of petitions; in some cases a period is fixed within which the appeal must be filed, in others a restriction is imposed upon the number of authorities an aggrieved official may invoke with reference to the status of such official, but there is, in general, no check except where a legal enactment or regulation provides for the appeal and imposes limits on its presentation. The Government do not act as a channel of communication for memorials addressed to Parliament.

The Indian Civil Service.

87. The body of public officers known since 1890 as the *Indian Civil Service* but previously designated the "Covenanted Civil Service of India," are the modern representatives of the merchants, factors, and writers who were employed under covenant by the East India Company. The officers of this service are recruited annually in England on the results of an open competitive examination, and they fill the higher appointments in the Civil administration of the country. On the recommendations of the Public Service Commission (1886–1887), a *Provincial Civil Service*, recruited locally in the respective provinces in India, was constituted in 1892, partly out of the appointments originally reserved to the Indian Civil

21 & 22 Vic., c. 106, s. 32. 24 & 25 Vic., c. 54, s. 2 and schedule. 24 & 25 Vic., c. 104, s. 2. 9 Edw. VII, c. 4, s. 2.

Service and partly out of the appointments included in the then existing Uncovenanted Civil Service. The lower administrative appointments above the ministerial grade form the *Subordinate Civil Service*. Under various statutory enactments, a reference to which is given in the margin, two at least of the Ordinary Members of the Council of the Governor of Fort St. George must be persons who at the time of their appointment have been in the service of the Crown in India for at least twelve years, and not less than one-third of the Judges of the High Court of Judicature must be members of the Indian Civil Service. Moreover, subject to certain exceptions in favour of the Provincial Civil Service and of other natives of India which are noticed below, all officers holding any of the following classes of appointments must be members of the Indian Civil Service :—

(*a*) Secretaries and Under Secretaries to Government in the Civil departments;
(*b*) Members of, and Secretaries to, the Board of Revenue;
(*c*) District and Sessions Judges, and Additional and Assistant Judges; and
(*d*) Collectors and District Magistrates, Sub-Collectors and Joint Magistrates and Assistant Collectors and Magistrates.

The *cadre* of the Indian Civil Service further provides for certain other appointments which are not reserved by statute such as those of the Inspector-General of Police, the Resident in Travancore and Cochin, the Commissioner of Coorg, the Director of Agriculture, the Registrar of Co-operative Credit Societies, the Private Secretary to His Excellency the Governor, the Director of Land Records, and one post of Deputy Commissioner of Salt and Abkāri. Other special appointments such as those of Special Settlement Officer and Provincial Superintendent of Census Operations are also usually held by members of the Indian Civil Service.

24 & 25 Vic., c. 54, ss. 3-4. Under modern legislation appointment to any of the offices in the four classes numbered (*a*) to (*d*) above may, in special circumstances and subject to certain qualifications, restrictions and conditions, be made from outside the ranks of the Indian Civil Service but any such appointment, if made by an authority in India, is provisional until it is approved by the Secretary of State for India in Council.

33 Vic., c. 3, s. 6. To provide additional facilities for the employment of natives of India of proved merit and ability in the Civil Service of the country, it was enacted in 1870 that natives of India might be appointed to the offices, places, and employments in the Civil Service of His Majesty in India (although such natives should not have been admitted to the said service by open competition in England), subject to rules to be made from time to time by the Government of India and sanctioned by the Secretary of State in Council, with the concurrence of a majority of the members present. For purposes of this statute, the term "natives of India" includes persons born and domiciled within the dominions of His Majesty in India, of parents habitually resident in India, and not established there for temporary purposes only. The rules under the statute of 1870 were first promulgated in 1879, when the class of officers known as *Statutory Civilians* came into existence. Between 1880 and 1890, ten such officers were appointed, of whom only one now remains in the service.

Statutory civilians.

In 1886 the Public Service Commission recommended, with a view to satisfying the growing aspirations of natives of India to more extensive employment in the higher branches of the public service, that the system of appointing Statutory Civilians inaugurated in 1870 should cease and that instead a certain number of the appointments which are specified in the schedule attached to the statutes 24 and 25 Vic., cap. 54, as reserved for the Indian Civil Service, should be thrown open to the then newly constituted Provincial Civil Service, and to natives of India not being members of the Indian Civil Service. Accordingly, 15 "scheduled" appointments in Madras were, in 1892, thus thrown open to members of the newly formed Provincial Civil Service, the statutory rules of 1879 being revised to that effect.

The Provincial Civil Service.

The appointments included in the list thrown open to the Provincial Civil Service and usually known as "listed appointments" were two of Collector and District Magistrate, four of District and Sessions Judge, one of Secretary to the Board of Revenue, one of Under Secretary to Government, two of Sub-Collector and Joint Magistrate, four of Head Assistant Collector and Magistrate (a grade which has been abolished by the reorganization of the Indian Civil Service in 1910) and one of Assistant Collector and Magistrate. Of these, the seven appointments in the grade of Sub-Collector and below have already been assimilated to the corresponding grades of the Provincial Civil Service, *i.e.*, the Deputy Collectors' *cadre*, the remaining eight appointments only retaining their original "listed" character at present.

"Listed" appointments.

Besides the "scheduled" appointments thrown open to the Provincial Civil Service, the Government of Madras may appoint any Subordinate Judge, being a member of the Provincial Civil Service and a native of India of proved merit and ability to be also an Assistant Sessions Judge. The number of such appointments is limited to two at any time.

Other Imperial Services.

88. Besides the Indian Civil Service, the Imperial Service of the Public Works Department is recruited in England, the officers being appointed by the Secretary of State for India in Council on the advice of a selection committee, including at least one eminent representative of the Engineering profession. Candidates must produce evidence that they have obtained one of the University degrees prescribed annually by the Secretary of State, or that they have passed the A.M.I.C.E. examination, or obtained such other diploma or distinction in Engineering, as may, in the opinion of the selection committee, be accepted as approximately equivalent to the degrees prescribed. The superior officers of the Police Department are generally recruited by competitive examination in England. Officers of the Imperial Forest Service are appointed by the Secretary of State with the advice of a selection committee and are required to pass through the Forestry Course at one of the Universities of Oxford, Cambridge or Edinburgh.

Educational qualifications for admission to the Public Service.

89. Admission to Government service in this Presidency is not as a rule dependent on success in a competitive examination, but no person can in general be appointed to a post, the sanctioned pay of which exceeds Rs. 20 per mensem unless he possesses the minimum educational qualifications laid down. Various examinations—public or departmental—are also prescribed for particular posts in each department. Detailed information on this subject will be found in paragraphs 794 and 795 of Chapter VII.

Gazetted and non-Gazetted Officers.

90. It does not follow that, because an officer is not appointed by Government and his appointment is therefore not gazetted in Part I of the *Fort St. George Gazette*, that he is not a gazetted officer; for instance, the appointments of District Munsifs, who are gazetted officers appointed by the High Court, are published in Part II of the Gazette. With this exception, however, officers whose appointments are now notified in Part I of the *Fort St. George Gazette* are generally gazetted officers and all other officers are non-gazetted. Certain other events in the service of gazetted officers, such as the grant of privilege leave to divisional officers by the Board of Revenue, are notified in Part II of the Gazette. On the other hand, events in the service of non-gazetted officers are occasionally published in Part I, for instance, the investitures of Tahsildars, Deputy Tahsildars and Taluk Sarishtadars with magisterial powers, which are granted by Government.

The Secretariat.

91. There are five Secretaries to Government. The Chief Secretary, who is assisted by a temporary Deputy Secretary, an Under Secretary, and a Registrar, deals with the correspondence relating to the Financial, Judicial, Public, Political, Ecclesiastical, Marine and Pension Departments. The Secretary to Government, Revenue Department, has a similar establishment under him but the temporary Deputy Secretary attached to him works also partly under the Secretary to Government, Local and Municipal, Educational and Legislative Departments. The Revenue Secretary deals with the administration of the land revenue, customs, abkāri, salt, income-tax and other "separate" revenue and of agriculture and connected subjects. The Secretary to Government, Local and Municipal Department, has as assistants an Under Secretary, who is a member of the Provincial Civil Service, and a Registrar. The same Under Secretary works also under the Chief Secretary in certain departments. The Secretary, Local and Municipal Department, has charge of the correspondence relating to the Educational, Legislative and Local and Municipal Departments. The Secretary to Government, Public Works Department, deals with all the correspondence relating to that department except that relating to the irrigation branch which is in charge of a Joint Secretary. The appointment of a Secretary to Government for Railways having been abolished in 1910, the work of that department is now performed by the Secretary to Government, Public Works Department. There are two Under Secretaries in the Public Works Department, one for the General, Buildings, Roads and Railway branches and the other for the Irrigation branch. There is also a temporary Deputy Secretary who assists the Secretary. The Secretary is further assisted by a Registrar. The Secretaries and Under Secretaries, except

24 & 25 Vic., c. 54.

those in the Public Works Departments and the "provincial" Under Secretary referred to above, must by Statute be officers of the Indian Civil Service.

Political.

92. One officer is appointed as Resident of the two Native States of Travancore and Cochin; he has under him an Assistant Resident. The Collectors of Trichinopoly, Bellary and Kurnool are *ex-officio* Political Agents for the Native States of Pudukkōttai, Sandūr and Banganapalle, respectively, and the Collectors of South Arcot, Tanjore, Malabar and Gōdāvari are *ex-officio* Political Agents for the French Settlements of Pondicherry, Karikal, Mahé and Yanam. A consul is appointed for Pondicherry and Karikal. The Collector of Madras is *ex-officio* Paymaster of Carnatic Stipends and in that capacity is under the Political department of Government. Officers in the service of Government are occasionally employed in the Native States with the sanction of Government.

Administration of the Land.

93. For purposes of general administration the Presidency is divided into 26 districts under the executive administration of a District Collector and Magistrate who is generally a member of the Indian Civil Service. Each district with the exception of Madras and Anjengo contains two or more divisions, a division again comprises one or more taluks, each of which is under the jurisdiction of a Tahsildar. Further details regarding the civil divisions of the Presidency will be found in paragraphs 226 to 241. Some of the Divisional Officers are members of the Indian Civil Service; the majority are, however, Deputy Collectors, who are members of the Provincial Civil Service. The Collectors as Revenue Officers are subject directly to

The Board of Revenue.

the control of the Board of Revenue which consists of four members of the Indian Civil Service. There are no officers corresponding to Commissioner of Divisions in other provinces who have charge of a number of districts. The revenue jurisdiction of each member of the Board of Revenue extends over the whole Presidency and the work of the Board is distributed among the members under Madras Act I of 1894. But orders on important matters are passed by the full Board. Two members of the Board are Commissioners of Land Revenue; one is Commissioner of Salt, Abkāri and Separate Revenue; and one is Commissioner of Revenue Settle-

Settlement, Survey, Land Records and Agriculture.

ment, Survey, Land Records and Agriculture and Inam Commissioner. Under this member are a Director of Survey,* a Director of Land Records, a Director of Agriculture, a Registrar of Co-operative Societies with three special Deputy Collectors, a Secretary, five special Settlement Officers in charge of Settlement Parties and six Special Assistant Settlement Officers, a Principal, Madras Veterinary College, and a Superintendent of the Civil Veterinary Department. The systems of Survey and Settlements are explained in paragraphs 148 to 225.

The Court of Wards.

Madras Act I of 1902.

94. The Board of Revenue is the Court of Wards; the Court is subject to the Local Government, and Collectors are subject to the Court, the powers of the Court being locally exercised through the District Collector. A proprietor, that is, a person who owns or has a life interest in land either solely or as a co-sharer is deemed to be disqualified for the management of his property if he is a minor, or is a woman declared by the Local Government to be incapable of managing her property, or has been adjudged by a competent civil court to be of unsound mind and incapable of managing his property, or has been declared by the Local Government to be incapable of managing his property owing to any physical or mental defect or infirmity. A proprietor *sui juris* may on his own application have his estate taken under the management of the Court, if the Government deems it to be in the public interest that it should be so managed. The Court may take under its superintendence the person or the property of a disqualified proprietor, or both, or the property of a proprietor who has applied to have his property placed under the superintendence of the Court. When the Court assumes the superintendence of a ward's property, the District Collector takes possession of the property on behalf of the Court. In the case of an incumbered estate, if the property is in the possession of a mortgagee or of any persons claiming under a mortgage, the Local Government may, in certain circumstances, require the encumbrancer to deliver up possession of the estate to the manager appointed by the Court. The Court may also in certain circumstances retain management after the proprietor's disqualification has ceased until it is satisfied that he will be thereafter competent to take charge of his estate and administer his own affairs. A small school for the education of minor wards at Madras is controlled by the Court.

* For particulars regarding the Gazetted officers under the Director of Survey please see para. 192 under System of Survey.

95. The administration of the scheduled districts—the Agency tracts in Ganjām, Vizagapatam and Gōdāvari and the Laccadive islands and Minicoy—differs considerably from that of the remainder of the Presidency. The administration of civil justice in these tracts as well as that of criminal justice and the collection and superintendence of the revenue is vested in the Collector in his capacity as Agent to the Governor. From a decree passed by the Agent in Ganjām or Vizagapatam in a suit, wherein the landed possession of a zamindar, bissoye or other feudal hill chief may have formed the subject of litigation, an appeal lies to the Governor in Council and not to the High Court. Many legal enactments, which are in force elsewhere, have not been extended to the scheduled districts. The Governor in Council may in cases of doubt declare what enactments are actually in force or that any enactment is not actually in force in any of the scheduled districts or any part of a scheduled district.

Scheduled Districts.
Madras Act XXIV of 1839.
India Act XIV of 1874.

96. The superior court for civil and criminal judicial work is the High Court at Madras. The High Court may consist of a Chief Justice and as many Judges, not exceeding 20, as His Majesty may from time to time think fit and appoint. At present, in addition to the Chief Justice, there are 7 puisne Judges and 2 temporary additional Judges appointed by the Governor-General in Council under section 3 of 1 and 2 Geo. V, c. 18. The Judges must be barristers of five years' standing or members of the Indian Civil Service of ten years' standing, who have exercised the powers of a District Judge or like powers for at least three years, or persons who have held judicial office not inferior to that of a Judge of a Small Cause Court for five years or pleaders of the High Court of ten years' standing; one-third of the Judges, including the Chief Justice, must be barristers and one-third must be members of the Indian Civil Service. The additional Judges are not taken into account in determining the number of Judges who must be barristers or members of the Indian Civil Service. A Judge holds office during His Majesty's pleasure but has power to resign. The Governor in Council may make temporary arrangements if a vacancy occurs in the High Court. A High Court Bench may consist of one or more Judges, a Full Bench being a Bench of not less than three of the Judges for the time being present as Judges of the Court. The High Court has framed rules

Administration of Criminal Law.
Criminal Courts.
The High Court.
24 & 25 Vic., c. 104, s. 2.

showing what class of work may be disposed of by the various Benches; certain matters may be disposed of by a Judge in Chambers. A list showing the sittings of the various courts during the following week is published every Friday. For the administration of criminal justice there are 22 Sessions Judges in the mufassal, the High Court being the Sessions Court in the Presidency town. Additional and Assistant Sessions Judges are sometimes appointed to assist courts in which the work is heavy. Sessions are held once a month at the head-quarters of each Judge. Magistrates are of three classes—first, second and third. The powers of a first-class magistrate are more extensive than those of a second-class magistrate; for instance, a first-class magistrate can pass a sentence of imprisonment for two years while the longest terms for which second and third-class magistrates can pass sentences of imprisonment are six months and one month respectively. Village magistrates are not included in these three classes of magistrates; they may try persons charged with petty thefts when the value of the property stolen does not exceed one rupee and certain other cases of a trivial nature; they may sentence such persons if found guilty to be confined in the village choultry for a time not exceeding twelve hours or to be put in the stocks for a time not exceeding six hours. The Collector is always District Magistrate except in the Presidency town, where there are four stipendiary magistrates (including the Chief Presidency Magistrate). There are also two Benches of Honorary Presidency Magistrates for the trial of petty cases. Divisional Officers are also Sub-Divisional Magistrates. These magistrates generally exercise all the powers of a first-class magistrate as well as certain other special powers. The bulk of the magisterial work, as far as the trial of original cases is concerned, is disposed of by second-class magistrates. In taluks where the work is light the Tahsildar and Sarishtadar—the head of the taluk office under the Tahsildar—exercise the powers of magistrates including the power to try cases and to commit accused persons for trial before the Sessions Court, but in other taluks Stationary Sub-Magistrates are appointed for this purpose. Tahsildars are magistrates of the second class *ex-officio* and Deputy Tahsildars and Sub-Magistrates and Taluk Sarishtadars are Magistrates of the third class *ex-officio*. In important

Sessions Courts.

Magistrates.
India Act V of 1898.

Reg. XI of 1816.
Reg. IV of 1821.

Presidency Magistrates.

Honorary Magistrates.

mufassal stations, retired Government officers with judicial experience are appointed Honorary Magistrates and exercise the ordinary and certain special powers of stipendiary first-class magistrates. Benches of magistrates are sometimes appointed in mufassal municipalities and other mufassal towns and villages with powers to try regularly cases under certain special laws, and with summary powers to dispose of certain other classes of petty cases. Special third-class magistrates chiefly selected from among Sub-Registrars are also appointed to try such petty cases in mufassal towns and villages not within easy reach of a regular Magistrate's Court. District Magistrates rarely take cases on their own file. Divisional Magistrates dispose of cases triable by a first-class but not by a second-class magistrate and of other cases which are of special importance for any reason or in which it is probable that a heavier sentence should be awarded than a subordinate magistrate is competent to pronounce in view of the previous history of the accused or of the value of the property stolen, etc. The District and Divisional Magistrates closely supervise the work of Subordinate Magistrates; all judgments pronounced by the latter are perused by the Divisional and District Magistrates except in certain petty cases the results of which only are reported. The judgments of Divisional Magistrates are perused by District Magistrates and Sessions Judges. District Magistrates and Sessions Judges transmit to the High Court copies of their judgments in certain cases.

Cantonment Magistrates.

In four cantonments in the Presidency the station staff officers are appointed magistrates of the third class and also Cantonment Magistrates under the Cantonment Act to try petty cases including breaches of cantonment rules.

Police.

97. The head of the Police department is the Inspector-General. The Presidency is divided into three ranges, each of which is under a Deputy Inspector-General of Police. A Superintendent of Police is stationed at the head-quarters of each district and in many districts there are Assistant Superintendents and Deputy Superintendents, who are subordinates to the Superintendent and have either distinct local charges or are employed as Personal Assistants to the Superintendent. The superior service is divided into two kinds, Imperial and Provincial, the former being open to Europeans generally recruited by examination in England and the latter to statutory natives of India recruited partly by promotion of Inspectors, partly from other branches of the public service and partly by direct appointment. Under them are the Inspectors, the Sub-Inspectors and the subordinate police establishment. The railways form two separate districts for the purposes of the Police department, a special force known as Railway Police being employed under two superintendents for the detection of offences within the railway limits and for the maintenance of order at railway stations. A Criminal Investigation Department is constituted to deal with crime of a special character and criminal organizations of more than local importance. To enable old offenders to be recognized, the finger prints of all convicts are taken and sent to the Finger Print Bureau at Madras. The Railway Police, the Criminal Investigation Department and the Finger Print Bureau are under the control of a separate Deputy Inspector-General. A Provincial Training School has been established at Vellore for the training of probationary Assistant and Deputy Superintendents, Inspectors and Sub-Inspectors. Central Recruits' Schools for the training of the constabulary have also been opened at Vellore, Vizianagram and Coimbatore and a fourth school is about to be constructed at Anantapur. The magistracy exercise a limited control over the work of the police, but have no power to inflict departmental punishments or to interfere directly in the internal administration of the department. The Madras City Police are administered by a Commissioner and two Deputy Commissioners. The former is subject to a limited control by the Inspector-General. In each village one or more village watchmen or talaiyaris are employed; they are under the orders of the village magistrates and are appointed by Divisional Officers; they are not ordinarily under the control of officers of the Police department, but the Local Government may allow the powers of punishing them usually vested in a Divisional Officer to be exercised by a Superintendent or Assistant Superintendent of Police in a specified area. Among other duties, they have to patrol the village at night, to carry the village magistrate's reports regarding crime and criminals to the nearest police station and Sub-Magistrate, to watch the cattle pounds and to assist in tracing offenders and detecting crime; they have no uniform, but in a few districts they are supplied with badges of office. In special localities ghât talaiyaris, enlisted

Madras Act III of 1888.

Village Police.

Madras Act III of 1895, s. 26.

and controlled by the Police department, are employed to supplement the police in guarding roads. The Local Government have power to declare an area to be in a disturbed or dangerous state and may then employ any police force in addition to the ordinary fixed complement to be quartered in the special area; the cost of the additional police force is generally borne by the inhabitants of the area and is apportioned among them by the District Magistrates, but the Local Government may exempt any person or class or section of the inhabitants from liabilities to bear a portion of the cost. Such additional police are commonly spoken of as punitive police.

Punitive Police. *India Act V of 1861 (as amended by India Act VIII of 1895), s. 15.*

98. The Inspector-General of Prisons controls the Jail department. There are nine central jails and five district jails; central jails are those in which prisoners sentenced to rigorous imprisonment for one year and upwards and prisoners sentenced to transportation are confined; they are also district jails for the districts in which they are situated. Each of the central and district jails (except two of the latter class which are managed by District Medical Officers) is under the charge of a Superintendent. One of the district jails has been set apart for the confinement of adolescent convicts (of ages between 15 and 21) on the Borstal system. The Surgeon-General, the Sanitary Commissioner, the Deputy Sanitary Commissioner, Sessions Judges, Presidency Magistrates, District Magistrates, and Sub-Divisional Magistrates are *ex-officio* visitors of jails within their jurisdictions; Government also appoint non-official visitors. Remissions of sentence are granted for good conduct and diligence, the marks gained being liable to forfeiture for prison offences. A convict may ordinarily earn three days remission in a month if he behaves well and performs the task imposed. Selected convicts may be employed as night watchmen, overseers or convict warders; they earn money gratuities and are granted in addition special remission and other privileges. At the head-quarters of each Sub-Magistrate is a subsidiary jail in which unconvicted prisoners, remanded or under trial, and convicts sentenced to imprisonment for not more than one month, are generally committed and confined; these subsidiary jails are superintended by Sub-Magistrates; they are inspected periodically by District and Sub-Divisional Magistrates and by District Medical Officers. There is a Reformatory School at Chingleput for the reception of juvenile offenders under the age of 15 years.

Prisons. *India Act IX of 1894.*

99. To administer civil justice there are 22 District Judges, 18 Subordinate Judges and 130 District Munsifs. There are also 11 temporary Subordinate Judges and 6 temporary District Munsifs, besides 4 Revenue officers exercising the powers of District Munsifs. In the Presidency town there are a City Civil Court consisting of one Judge and a Small Cause Court consisting of a Chief Judge and two other Judges. Heads of villages may be appointed village munsifs with power to try petty suits in which the value does not exceed Rs. 20 or, with written consent of both parties, Rs. 200. Offices for the registration of documents have been established at convenient centres throughout the Presidency, which for this purpose is divided into districts and sub-districts. The latter are under Sub-Registrars, of whom there are 498. Four hundred and ninety-one of these are divided into eight grades on pay ranging from Rs. 50 to Rs. 150, while the remainder are *ex-officio* registering officers. The districts are presided over by District Registrars, twenty in number, on pay rising from Rs. 200 to Rs. 500. This number includes the two appointments of Personal Assistant to the Inspector-General of Registration and Inspector of Registration offices. The head of the department is the Inspector-General of Registration. The duties of the Registrar of Joint Stock Companies, of the Registrar of Provident Insurance Societies and of the Registrar of Life Assurance Companies are performed by the Registrar of Madras-Chingleput. Seventeen Registrars and four Sub-Registrars in the mufassal are Assistant Registrars of Joint Stock Companies. All registering officers are Registrars of Births and Deaths under the Births, Deaths and Marriages Registration Act, 1886. One hundred and forty-one officers are also notaries public. Several of them exercise magisterial powers of the third class for the trial of offences punishable under local laws. Sub-Registrars stationed at the head-quarters of Deputy Tahsildars are placed in charge of the sub-treasury during the absence of the Deputy Tahsildar on tour. At taluk stations they are in charge of the double lock chests

Administration of Civil Law.

Civil Courts. *Madras Act I of 1889.*

Registration. *India Act XVI of 1908.*

India Act VI of 1882. *India Act XXVI of 1881.*

during the absence of the Tahsildar on tour if there is no Sub-Magistrate at the station, or when both the Tahsildar and the Sub-Magistrate are absent on duty simultaneously.

Local and Municipal Administration.

District Boards. *Madras Act V of 1884 (as amended by Madras Acts III of 1890 and VI of 1900).*

100. A district board has been formed for every district and in the Vizagapatam district the agency tracts constitute the charge of a second and distinct district board known as the Koraput District Board. Taluk boards exist in all local fund districts except the Nilgiris and Koraput. The area under a district board ordinarily is the revenue district excluding all municipalities, while that under a taluk board is, with one negligible exception, coterminous with a revenue division. A district board consists of an *ex-officio* president (the Collector of the district) and not less than 24 members except in the Nilgiris where the board is composed of not less than 12 members in addition to the president. Every revenue officer in charge of a division of a district is *ex-officio* a member of the district board; the other members are either appointed by the Governor in Council or elected by the taluk boards; but the number of persons appointed by the Governor in Council who hold salaried offices under Government, together with the *ex-officio* members must not exceed one-fourth of the whole number of members of the board. If the members are partly appointed by election, the number of elected members may, under the law, be three-fourths of the whole number of members but the actual elective proportion is one-half. A taluk board consists of a president who is the revenue officer in charge

Taluk Boards.

of the division except in the case of three taluk boards, of which the president is elected by and from among the unofficial members of the board, and not less than twelve other members who are partly appointed by the Governor in Council and partly elected by the tax-payers and inhabitants of the taluk, except in two instances where the boards have not been admitted to the elective franchise on account of the backwardness of the localities concerned. The Governor in Council may appoint any other member to be president of a district or taluk board instead of the *ex-officio* president, but this power has not yet been exercised. Presidents, vice-presidents and members of local boards do not ordinarily receive any remuneration as such, but may be paid reasonable expenses incurred in attending meetings of the boards and when travelling on tours of inspection. Presidents are responsible for seeing that the resolutions of their boards are carried into effect. Important

Union panchayats.

villages which are not municipalities may be declared to be unions, in which case panchayats are appointed for the administration of such areas under the control of the taluk boards. A panchayat consists of five or more members who may be either appointed by Government or elected by the tax-payers and inhabitants of the union; the elective method of appointment has not yet been actually introduced, but measures for its partial introduction have recently received the sanction of Government; the headman of each revenue village, any part of which is included in a union, is *ex-officio* a member of the panchayat. The Chairman is appointed by the taluk board president in virtue of powers delegated to him by the Government. Union panchayats exist in all districts except South Canara, Koraput and the Nilgiris. The main source of income of district and taluk boards is a tax not exceeding two annas in the rupee on the annual rent value of all occupied land in the districts of Malabar, South Canara and the Nilgiris and not exceeding one anna in the rupee on the annual rent value of such land elsewhere. A special tax on lands not exceeding 3 pies in the rupee on the annual rent value of occupied land is levied by certain district boards for expenditure on the construction of railways. The income of union panchayats is derived chiefly from a tax on houses. Other sources of the income of local boards and panchayats include tolls, fees for the use of markets, cartstands and slaughter houses and various miscellaneous fees. The annual budgets of local boards require the sanction of Government. The ordinary duties of these boards are the construction and maintenance of roads and bridges, avenues, hospitals, dispensaries, markets, water-works, wells, drains, latrines, the training and employment of medical practitioners and vaccinators, the supervision of sanitation and vaccination, the diffusion of education, the establishment and maintenance of relief works in time of famine or scarcity, and other measures of local utility which are calculated to promote the public safety, health, comfort or convenience. District boards employ engineering establishments for the construction and maintenance of public works vested in or under the control of the district and

taluk boards; but the services of officers of the Public Works Department are occasionally utilized with the permission of Government for the execution of special works considered to be beyond the powers of the ordinary local fund staff. The District Medical and Sanitary Officer, who is usually a member of the district board, advises the boards on subjects connected with medical institutions and sanitation, and the officers of the Educational Department similarly give advice on educational matters.

Municipal Administration.

District Municipalities. *Madras Act IV of 1884 (as amended by Madras Act I of 1899, III of 1897, II of 1907 and V of 1909).*

101. The duties devolving on local boards are discharged in municipal areas by independent bodies styled municipal councils. Each council consists of not less than twelve and not more than twenty-four members including the officer in charge of the revenue division who is *ex-officio* member of all councils within his jurisdiction. The other councillors are partly elected by the rate-payers and inhabitants of the municipality and partly appointed by the Governor in Council, the number of official nominees including the *ex-officio* councillor being by law restricted to one-fourth of the sanctioned strength. Municipal taxes are leviable on buildings and lands at a rate not exceeding $8\frac{1}{2}$ per cent. of their annual value, an alternative land-tax not exceeding 4 annas for every eighty square yards being in certain cases permissible. Other sources of municipal income are a profession-tax, tolls, taxes on vehicles and animals, and a water and drainage tax assessable on buildings and lands at a rate not exceeding 8 per cent. on their annual value, the proceeds of which are reserved for expenditure on water-supply or drainage works. In hill stations, a tax on private menial and domestic servants may, in addition, be levied at a rate not exceeding 2 rupees per mensem for each such servant, and the rates of the tax on buildings and lands and the water and drainage tax may be increased to a maximum of 10 per cent. each on the annual value; a special lighting tax on buildings and lands at a rate not exceeding 3 per cent. on their annual value is also leviable where provision has been made for the lighting of the town with gas or electricity. The registration of births and deaths is compulsory in all municipalities and the vaccination of children is also obligatory. In the more important towns paid chairmen are employed or paid secretaries are appointed to relieve the honorary chairmen of many of their duties.

Corporation of Madras. *Madras Act III of 1904 (as amended by Madras Acts IV of 1907 and II of 1911).*

102. The municipal affairs of the City of Madras are administered by a Corporation consisting of a President and 36 commissioners, The President, who is a paid officer, and 8 of the commissioners are appointed by Government, 20 are elected by the rate-payers and inhabitants of the twenty municipal divisions, 3 are nominated by the Madras Chamber of Commerce, 3 by the Madras Trades Association, 1 by the Trustees of the Harbour of Madras, and 1 by the Madras and Southern Mahratta Railway Company. The detailed control of the administration vests in a Standing Committee consisting of the President with eight commissioners chosen by the Corporation. The President himself is the head of the executive. The taxes leviable in the City of Madras are, in general, similar to those obtaining in mufassal municipalities, but the tax on buildings and lands may amount to 10 per cent. of their annual value and the water and drainage tax is limited to $6\frac{1}{2}$ per cent. of that value in the populous parts of the city and to $4\frac{1}{2}$ per cent. generally elsewhere; while the lighting tax must not exceed 2 per cent. of the same figure. The three principal officers of the municipal corporation are the Revenue Officer, the Health Officer and the Engineer, who are appointed by the Governor in Council. A Special Engineer has also been appointed who is charged with the important duty of carrying out the new water and drainage schemes. The Government have also power to appoint a special sanitary officer, in the event of any unusual mortality or the prevalence of any dangerous disease within the city, to investigate the causes thereof and to advise as to the measures to be taken for the abatement or removal of such mortality or disease, but it has not hitherto been found necessary to use this power.

Marine.

103. The Marine Department includes the Presidency Port Officer and the Deputy Conservator of the Port of Madras, who are officers of the Royal Indian Marine, and 15 other Port officers, one of whom is Personal Assistant to the Presidency Port Officer and Agent for Government Consignments, Madras, while the others are stationed at minor ports. The Port of Madras is under the control

of a body of trustees constituted under the Madras Port Trust Act II of 1905. The management of the pearl and chank fisheries has been taken over by the Fisheries Department from the Port Officer, Tuticorin, from the 1st April 1909.

Civil Veterinary Department.

104. The Civil Veterinary Department is controlled by a Superintendent who is a Civilian member of the Indian Civil Veterinary Department. He is assisted by a Deputy Superintendent. The Veterinary College is presided over by another Civilian member of the Indian Civil Veterinary Department, under whom are an Assistant Principal and other lecturers. The work of the whole department is controlled by the Board of Revenue.

Horticulture.

105. Botanic gardens are maintained on the Nilgiri hills under the charge of the Curator of the Government Gardens and Parks, the Nilgiris.

Cinchona and Quinine.

106. The Government have large cinchona plantations on the Nilgiris and a factory at Nedivattam for the manufacture of quinine for sale in the form of pice packets at Post offices and by Revenue officials. Quinine is also supplied to the Medical Depots of Madras and Bombay and to hospitals and dispensaries throughout the Madras Presidency, the United Provinces, Central Provinces, Ajmere, Rajputana, Native States and Burmah. The plantations and factory are under the Director of Government Cinchona Plantations and the head of the department is the Secretary to Government, Revenue Department.

Botany.

107. The Agricultural Department is under the direct supervision of the Director of Agriculture, who has under him two Deputy Directors of Agriculture, two Assistant Directors and a Planting Expert in addition to the staff of the Agricultural College and Research Institute, Coimbatore, which consists of the Principal, the Government Botanist, the Agricultural Chemist, the Mycologist and the Entomologist. There is no regular botanical survey of the Presidency at present and the Government Botanist is mainly employed in teaching at the college and in dealing with all questions of economic botany and allied subjects. The department is under the general control of the Board of Revenue.

Forests.

108. The Forest Department which is maintained for the conservation and exploitation of the Government forests is controlled by a Member of the Board of Revenue. There are four Conservators of Forests for the Presidency with separate local charges. There are 21 Deputy Conservators, 8 Assistant Conservators and 5 Extra Deputy Conservators, these with the Conservators constituting the upper controlling staff. The lower controlling staff includes 22 Extra Assistant Conservators. In each district except Madras, Anjengo and Tanjore, an Assistant or Deputy Conservator or Extra Deputy Conservator or Extra Assistant Conservator is posted as District Forest Officer who is an Assistant to the Collector for purposes of forestry. There are four District Forest Officers in Coimbatore, three in Kurnool and two in each of the districts of Gōdāvari, Cuddapah, North Arcot, Salem and Malabar. A third District Forest Officer will shortly be appointed in Gōdāvari. Tanjore is combined with Trichinopoly for purposes of forest administration and Tinnevelly and Rāmnād have recently been combined to form a single forest district. The lower controlling staff consists generally of the members of the Provincial Service to which only persons who have undergone training at the Imperial Forest College, Dehra Dun, can be admitted. Under the controlling staff are the executive staff (Rangers and Deputy Rangers) and the protective staff (Foresters, forest guards, etc.). Government may declare any land at their disposal to be reserved forest after due enquiry into, and the determination of, the claims of private persons thereto. An officer specially appointed to conduct such investigation is called a Forest Settlement Officer. Pending the completion of the enquiry, the land is declared to be reserved land and the accrual of any fresh private rights over it is barred. Grazing, cultivation, tree-felling, quarrying, hunting, shooting, etc., in reserved forests are prohibited by law except under permits for which fees are usually charged; privileges are, however, granted in special cases to aboriginal tribes habitually dwelling in forests, and in times of famine grazing is permitted in reserved forests, free of charge. Conservation and exploitation are carried out in reserved lands in a lesser degree than in reserved forests. In some zamindaris in the Presidency, the conservation of the zamindar's forests is secured by rules modelled on those in force in Government reserved lands.

Madras Act V of 1882.

The Public Works Department.

109. The Public Works Department is responsible for the construction and maintenance of buildings belonging to Government (except certain buildings in charge of the Forest and of the Salt, Abkāri and Separate Revenue Departments), lighthouses, navigable canals and irrigation works which are ordinarily capable of irrigating more than 200 acres of land; it does not, as a rule, maintain roads and does not carry out works in certain cantonments, which are under the charge of the Military Works Department. Ordinary works connected with the maintenance and improvement of harbours are in charge of officers of the Marine Department, but the execution of important works is usually entrusted to the Public Works Department. At the head of the Public Works Department are two Chief Engineers, of whom one is Chief Engineer and Secretary to Government, Public Works Department, and the other is Chief Engineer and Joint Secretary to Government, Public Works Department (Irrigation Branch). No railways in the Presidency are worked by the State. The appointments of Consulting Engineer for Railways and Secretary to Government, Public Works Department (Railways) have been abolished, and the Railway Secretariat work is now performed by the Secretary to Government, Public Works Department. There are seven Superintending Engineers, each of whom is in charge of one of the territorial circles, into which the Presidency is divided for the purpose. One of these seven circles of superintendence has been constituted temporarily for a period of two years from the 24th September 1911. The Sanitary Engineer to Government ranks as a Superintending Engineer of the Public Works Department. The Engineer establishment includes Executive Engineers and Assistant Engineers also, the present sanctioned numbers being 45 and 39, respectively. The Engineer establishment is divided into two classes, the Imperial service and the Provincial service. The former service is recruited in England, the officers being appointed by the Secretary of State for India in Council on the advice of a selection committee including at least one eminent representative of the Engineering profession. The latter service is recruited in India, one appointment as Assistant Engineer being made annually by the Local Government from among the passed students of the Engineer class of the College of Engineering, Madras, and another appointment in alternate years by selection from the Upper Subordinate service. Temporary establishments are entertained for special purposes. The Consulting Architect to Government is outside the Engineer *cadre* and has no executive duties to perform, his duties being now confined to what his designation implies. The accounts of the department are audited by the Accountant-General, the Public Works Accounts Branch having been amalgamated with the Civil Accounts Branch; the Government treasuries are used as banks by the department, officers being credited with specified amounts to enable them to pay by cheque for the works under their charge.

Financial Department.

110. The head of the Financial Department under the Local Government is the Accountant-General and Commissioner of Paper Currency. In consequence of the amalgamation of the Public Works Account with the Civil Account departments in July 1910, the former Examiner of Public Works Accounts has been made a Deputy Accountant-General and is subordinate to the Accountant-General who now controls the Public Works Account staff also. The Accountant-General has also in his office for purposes of Civil audit a Deputy Accountant-General and three Assistant Accountants-General, one of whom is Examiner of Local Fund Accounts while the other two are in charge of the Pay department and of the Currency Office respectively. At the head-quarters of each district is a district treasury in direct charge of a Treasury Deputy Collector and at the head-quarters of a taluk is a subordinate treasury in charge of the Tahsildar. The Collector is, however, responsible for the security of the cash balance and stamps in the treasuries in his district.

Salt, Abkāri and Separate Revenue.

111. The manufacture and sale of salt and of intoxicating liquors and drugs including opium are controlled by the Salt, Abkāri and Separate Revenue Department. The head of the department is the Commissioner who is a Member of the Board of Revenue. There are four Deputy Commissioners, three of whom have charge of territorial divisions—Northern, Southern and Central—while the fourth who is designated the Abkāri Deputy Commissioner is responsible for the supervision of distilleries and as a trained Chemist is responsible for the working of the Board's

Laboratory. One Deputy Commissioner and the Secretary to the Commissioner are usually Members of the Indian Civil Service. There are 14 Assistant Commissioners and 85 Inspectors. The manufacture of salt is a Government Monopoly and one of the principal duties of the officers of the department is the prevention of the unauthorised manufacture of salt. The factories are of two classes: in factories for the manufacture of salt for sale to Government, salt is manufactured by ryots who are paid for their salt by Government as soon as it is stored, and this salt is again sold by Government usually at fixed rates but occasionally in public auction: in factories for the manufacture of salt for general sale, private persons are permitted not only to carry on the manufacture subject to the conditions of their licences but also to dispose of their salt to any one at any rate they please. Salt which has been sold by Government, and salt which is the property of licensees or of purchasers from them, may not be removed from the factories until duty at the rate of Re. 1 a maund has been paid.

Madras Act IV of 1889.

Foreign Liquor. *Madras Act I of 1886.*

112. The manufacture and the sale of any intoxicating liquor or drug except under due authority are prohibited by law. In the case of imported liquors, the duties leviable under the tariff for the time being in force are credited to Customs, and the excise revenue therefrom is derived only from licences for the privilege of vend. The right of vend in taverns licensed for the retail sale of liquor on and off the premises is sold in public auction; in other cases, fixed fees are charged for licences. A brewer must take out a licence and comply with certain rules; duty at the rate of 3 annas per imperial gallon must be paid once in a quarter on the total quantity of beer brewed during the quarter less 5 per cent. allowed for wastage.

Country spirit.

Contract distillery system.

113. The revenue derived from country spirit is levied partly by means of a still-head duty and partly by licence fees and the sale of the right of vend; country spirit is arrack which is generally distilled from jaggery or molasses. Under the "Contract Distillery System" which is now in force throughout the whole Presidency except in a few isolated tracts of the Ganjām, Vizagapatam, Gōdāvari and Malabar districts where the ordinary renting system is still in force, the exclusive privilege of manufacture and supply of country spirits throughout a district or other specified area is disposed of by tender to the approved individual or firm, who agrees to supply spirits at the lowest rate over and above the still-head duty. The successful tenderer has the monopoly of supply of liquor of his own manufacture to retail vendors within the area of his contract at rates which are fixed by Government, and he must generally establish wholesale depots at convenient places for this purpose; he must also pay the still-head duty at the rate fixed by Government on all liquor so issued; the duty except in certain low-duty areas varies from Rupees 3–12–0 to Rs. 6–4–0 per proof gallon except in Madras Town and eleven adjoining villages of the Saidapet taluk where it is Rs. 7–8–0 per proof gallon; the annual fee for a licence to establish and maintain a distillery is Rs. 100 and licences for warehouses are issued free. If a distiller himself establishes a wholesale depot, no fee is charged; but to facilitate the supply of spirits to retail vendors in tracts which are within easy reach of neither a distillery nor a warehouse licences are issued at the instance of the contractor, to persons who are not distillers on payment of a fee of Rs. 15 for the wholesale vend of country spirits, the licensees being allowed to sell only to other wholesale depot keepers and independent arrack shopkeepers in the districts or other tracts to which the licence applies. The manufacture is separated from the sale of liquor. The right of retail vend of country spirits is sold annually in public auction by separate shops. The rates of still-head duty are fixed by the Governor in Council and may vary from year to year. Liquor may be issued and sold only at certain specified strengths, viz., 30° or 60° under-proof, except near the Pondicherry frontier, where liquor of strength 40° under-proof may be sold. Under the "ordinary renting system" no attempt is made to concentrate manufacture in distilleries or to levy a still-head duty. The exclusive privilege of manufacture and sale is disposed of in public auction by the taluk or by the Revenue Inspector's range or other convenient unit. The number of stills is limited as far as possible and the number and sites of shops are previously fixed; shopkeepers are required as in distillery tracts, to sell their liquor at specified strengths. This system has been abandoned wherever circumstances have permitted the introduction of the contract distillery system.

Ordinary renting system.

Toddy.

114. Unfermented or "sweet" toddy—the sap of a cocoanut, sago, palmyra, date or dadasal palm—is not subject to any taxation, but it must be drawn in pots freshly coated internally with lime or containing sufficient lime to prevent fermentation. Fermented toddy is taxed by means of rents payable for the right of retail vend and also, throughout the greater part of the Presidency by means of the tree-tax system under which a fixed fee is charged for every tree, from which it is intended to draw fermented toddy. The right of retail vend is sold in public auction. Under the tree-tax system, no palm tree may be tapped for the purpose of producing fermented toddy without a licence, upon issue of which the tree is given a distinguishing mark. The fees for licences to tap cocoanut palms and sago palms are Rs. 3–6–0, and Rs. 6–12–0 a tree for each half-year and the fee for a licence to tap a palmyra or date palm is Rs. 2–4–0 a year; in some districts, fees are levied at about two-thirds of these rates and in Madras Town Circle special rates are in force.

Tree-tax system.

Shops.

115. In municipal towns, local committees are appointed to advise the Collector in respect of the number and location of shops. In other areas, the number and sites of shops are determined by Collectors in consultation with the District Superintendent of Police. Representations made by District or Taluk Boards, Village Panchayats and of persons who may be specially interested, such as Railway authorities, Forest officers and large employers of labour are duly considered. A maximum limit for the number of shops in each taluk or division or municipal town is fixed by the Board. Whenever any change is contemplated in the number or sites of shops, a list of the shops to be opened during the ensuing lease, with sites, is forwarded to the Municipal Council, District or Taluk Board concerned in time to allow of representations as to the number or site to be received and considered by the Collector. The sites of new shops are published in the District Gazettes six months before the commencement of the lease. As far as possible, sites of shops are kept at a distance from bathing ghâts, market places, schools, hospitals, places of worship, factories and other places of public resort.

Opium.

116. The cultivation of the poppy is prohibited, and the whole of the opium required for the Presidency is supplied by the Government factory at Ghazipur and stocked in storehouses, one at Madras and the other at Rajahmundry in Gōdāvari district, whence it is issued to licensed vendors at a price fixed from time to time. Import of opium or intoxicating drugs is permitted only— *India Act I of 1878.*

(*a*) in the case of imports by sea by licensed chemists or druggists or,

(*b*) under special orders of the Board of Revenue to be obtained in each case.

The privilege of the retail vend of opium and of the manufacture and sale of intoxicating drugs (other than smoking preparations) prepared therefrom is sold in auction by shops; shopkeepers must obtain their stock from one of the two Government storehouses or from a Taluk kacheri in the district where opium is stored.

Ganja, bhang charas.

117. Licences for the cultivation of the hemp plant are issued only in the Bāpatla taluk of the Guntūr district and in the Polur taluk of the North Arcot district; elsewhere, its cultivation is absolutely prohibited. In tracts where it is licensed, the cultivators are required to convey the produce to public storehouses whence removals are allowed only on prepayment of excise duty at Rs. 7–8–0 per seer of ganja, Rs. 3 per seer of bhang and Rs. 12 per seer of charas. Licences for the vend of these intoxicating drugs are sold in public auction, and licences for wholesale depots are also granted on payment of Rs. 15.

Income-tax.

118. The assessment and collection of income-tax form part of the ordinary duties of the officers of the Land Revenue Department and no special establishment other than clerical is entertained for this purpose except in Madras where there are Income-tax Inspectors. For the Devakōttai division of the Rāmnād district, a special Tahsildar on Rs. 150 per mensem has been appointed for income-tax work.

Stamps.

119. The Collector of Madras is also Superintendent of Stamps and Stationery and has under him an Assistant Superintendent who is a Deputy Collector.

Customs.

120. The sea and land customs establishments are controlled by the Collector of Customs, Madras. He is assisted by two Assistant Collectors who are members of the Imperial Customs Service and five Inspectors who are borne on the *cadre* of the Salt, Abkāri and Customs Department.

Registration of Births and Deaths.

121. The registration of births and deaths is compulsory in municipalities and may be made compulsory in rural areas by the Local Government under Madras Registration of Births and Deaths Act (III of 1899); during the year 1911 this Act was in force in 3,558 towns and villages. In rural tracts the registers of births and deaths are maintained by railway station-masters or by headmen of villages according as the tracts are within or outside railway limits; where registration is not compulsory, the headman has to ascertain by careful enquiries the occurrence of births and deaths outside railway limits. The registers are inspected and checked by officers of the Land Revenue, Medical and Vaccination Departments and by Chairmen of municipalities and unions, but the officer responsible for the compilation of statistics for the whole Presidency is the Sanitary Commissioner. With a view to minimising the loss of life through wild animals, Government offer rewards for the destruction of certain dangerous wild animals.

Emigration.

122. The Collector of Madras is Protector of Emigrants and has under him a Medical Inspector of Emigrants.

Medical Relief, Sanitation and Vaccination.

123. The higher appointments in the Medical Department are usually held by commissioned officers of the Indian Medical Service. The head of the department is the Surgeon-General with the Government who has also under him the Medical College, Madras, and the Medical schools at Royapuram, Tanjore and Vizagapatam. The branch of the department which deals with sanitation, vaccination and epidemics is superintended by the Sanitary Commissioner. The Deputy Sanitary Commissioner is also Inspector of Vaccination. The Government maintain the General Hospital, the Ophthalmic Hospital and the Maternity Hospital at Madras as well as other civil and police hospitals. The staff of the General Hospital includes three Surgeons, four Physicians and a Resident Medical Officer; one of the Surgeons or Physicians is also the Senior Medical Officer of the hospital and draws an extra allowance on that account, and all the seven are professors of the college; one of the professors of the college is also Principal and draws an extra allowance. The Professor of Chemistry is also Chemical Examiner to Government. Four Medical Officers are stationed in Madras town which is divided for the purpose into four districts; the Presidency Surgeon, 1st District, is Inspector of Emigrants and Superintendent of the Medical School, Royapuram. A District Medical and Sanitary Officer is stationed at the head-quarters of each mufassal district, and Civil Surgeons are stationed in seven other towns. The District Medical and Sanitary Officers, Tanjore and Vizagapatam, are also the Superintendents of the Medical Schools at those stations. Medical Officers receive special fees for inspections of vessels. Three Lunatic Asylums (Madras, Calicut and Vizagapatam) are maintained by Government. There is a separate Superintendent for the Asylum at Madras, but at Calicut and Vizagapatam the District Medical and Sanitary Officer and the Medical Superintendent of the Central Jail, respectively, are the Superintendents. Two leper hospitals are maintained by Government, one at Madras in charge of the Assistant to the Presidency Surgeon, 1st District, and the other near Cochin called the Palliport Lazaretto under the Civil Surgeon at Cochin. Sanitation, vaccination and the prevention and repression of epidemics are under the superintendence of the Sanitary Commissioner. The Sanitary Board advises Local Boards, Municipal Councils and the Government itself in regard to projects connected with water-supply, drainage and sanitation and the issue of type-designs and type-plans of hospitals, markets and the like; a Sanitary Engineer is employed to investigate and report on sanitary projects. The salaries of officers in the subordinate grades, including Sub-Assistant Surgeons, Vaccinators and Sanitary Inspectors, are paid wholly or mainly by Local Boards and Municipal Councils, who maintain hospitals and dispensaries throughout the Presidency. Deputy Inspectors of Vaccination are paid wholly by Government.

Scientific Departments.

124. Appointments in connection with science include the Superintendent, Government Central Museum, who is also Librarian of the Connemara Public Library, the Superintendent, Archæological Survey and the Assistant Archæological Superintendent for Epigraphy for the Madras Presidency.

Education. Ecclesiastical Administration.

125. The system of public instruction and the ecclesiastical jurisdiction are fully dealt with in chapters VII and IX.

126. The supply of stationery to all Government offices is controlled by the Superintendent of Stationery, whose duties are performed by the Collector of Madras. In his capacity of Superintendent of Stationery he is under the direct control of the Financial Department of Government. The printing work for Government is done at the Government Press and at its branches in the Penitentiary at Madras, where prisoners are employed, and at Ootacamund. The Superintendent of the Government Press controls this department. There is a district press at the Collector's head-quarters in each district. **Stationery and Printing.**

127. It is now possible to indicate in greater details the duties of Collector and Magistrate of a district. As District Magistrate he is primarily responsible for the maintenance of law and order and for the administration of criminal justice by the magistracy within his jurisdiction and for the proper working of the police. As Collector he is the official head of his district, and it is his duty to see that land revenue, income-tax and revenue derived from forests and abkāri or excise are duly collected and he is officially responsible for all public money lodged in the district and subordinate treasuries. The maintenance of the numerous land records by the village officials, the state of the crops, the economic condition of the people and the grant of remissions of land revenue, when necessary or expedient, demand his constant attention. The forests in his district are under his control and management. He has under him an Engineering establishment for the upkeep of the tanks and other irrigation works which have not sufficient capacity for the irrigation of more than 200 acres of land. He is responsible for the due assessment of all persons in the district whose incomes are such as to render them liable to pay income-tax. He fixes the number and sites of shops for the sale of intoxicating liquors and drugs (1) in municipal areas in consultation with local committees appointed for the purpose, and (2) in other areas in consultation with the District Superintendent of Police; and it rests with him to accept or to reject the bids offered for the rights of vend in such shops or tracts at the annual auctions which are held by his Divisional Officers. In zamindari tracts his Divisional Officers decide suits and generally regulate the relations between land holders and ryots under the Estates Land Act, I of 1908. The Collector is *ex-officio* President of the District Local Board and as such is largely responsible for the maintenance of roads, the spread of education the establishment of hospitals and dispensaries, and for sanitation, vaccination and the public health within his district. He has powers of control over municipal councils and taluk boards. The Collector is also called on to deal with such emergencies as famine—of the approach of which it is his duty to warn the Government—plague, cholera and the movements of troops. In some cases he holds also other appointments such as Political Agent to a Native State, etc. His multifarious duties necessitate frequent tours of inspection during all seasons of the year. Many of the Collector's powers and much of his patronage are exercised by his subordinates and much of his time is occupied with the disposal of appeals preferred against the orders of his Divisional Officers. A Divisional Officer who, if a member of the Indian Civil Service, is a Sub-Collector and Joint Magistrate and if a member of the Provincial Service, is a Deputy Collector and Magistrate, is *ex-officio* member of the District Board and generally President of his Taluk Board; he is also a member of all municipal councils within his jurisdiction and is not infrequently appointed chairman of a municipal council. He exercises within his division most of the ordinary powers of a Collector, but, with a few exceptions, an appeal lies to the District Collector against his orders. The powers and patronage of a Divisional Officer of the Indian Civil Service of not less than nine years' service are somewhat larger than those of other Divisional Officers. The taluks are divided for revenue purposes into ranges, usually three or four in number; the officer in charge of a range is called a revenue inspector. **The Collector and District Magistrate.** **The Divisional Officer.**

128. The lowest unit for administrative purposes is the village. In each village is a headman, sometimes called the patel or reddi or monigar or munsif, an accountant, who is generally called the karnam, and a staff of menial servants. These officers who used to receive no remuneration in money but held certain lands on favourable terms are now given fixed salaries, the pay of a headman varying from Rs. 5 to Rs. 30 and that of the accountant from Rs. 8 to Rs. 16. In some districts these offices are hereditary, but hereditary considerations may be neglected if the candidate for the office of headman or karnam is not educationally or otherwise fit to hold office. The headman is responsible for the collection of revenue and its remittance to the taluk treasury; in his capacity of village magistrate he **The Village Officer.**

can try petty cases and must maintain law and order in his village, applying for assistance to higher authorities if necessary and reporting the occurrence of crimes, the movements of criminal gangs, etc., to them; as village munsif he is a petty civil court; he is registrar of births and deaths; it is generally his duty to see that water is duly distributed to irrigable lands from Government tanks, etc. As the immediate representative of the Government he has numerous other duties. The accountant is responsible for the maintenance and custody of the accounts and land records relating to the village. During the cultivation season he has to record the crop raised in each field, and the area in which it is raised and an estimate of its outturn. He is required to have an elementary knowledge of surveying, sufficient to enable him to survey and plot an ordinary field. He acts as clerk to the headman in his judicial capacity.

CHARACTER OF LAND TENURES.

Introduction.

129. The following are the main varieties of land tenures under the Government:—(i) perpetual freeholds held under a title-deed showing proprietorship as against the Government, and paying no land revenue; (ii) enfranchised inams or grants of land or of the land revenue thereon held under a title-deed showing proprietorship as against the Government, and paying a quit-rent fixed for ever, calculated at a favourable rate; (iii) zamindaris or landed estates held under a sanad or title-deed showing proprietorship as against the Government, and paying a land revenue or peshkash fixed in perpetuity; (iv) unsettled palayams or landed estates held without sanads the land revenue on which may be raised at the pleasure of the Government; (v) individual holdings under what is termed *ryotwari tenure* without a sanad expressly declaring proprietorship, and paying a revenue subject to additions and deductions in certain special circumstances and subject to revision at intervals of thirty years; (vi) inam holdings including *jagirs*, or grants of land or of land revenue held under a tenure dependent on the fulfilment of certain conditions; (vii) land held on special conditions as (*a*) on improvement leases called *cowles* and (*b*) under the favourable rules for planting *topes* or groves of trees.

Perpetual Freeholds.

130. The perpetual freeholds now existing were created under the rules for the redemption of land revenue and quit-rent on enfranchised inams under the rules in force during the latter half of the last century. Under these rules the redemption of land revenue was permitted in the case of (1) sites of buildings, (2) gardens of limited extent attached thereto, and (3) hill plantations of exotic products, such as tea, coffee, cinchona, etc. The rate of redemption was first fixed at twenty-five times the annual land revenue but, in 1895, it was raised to twenty-nine times such sum. In zamindaris the registered zamindar alone was given the right to redeem the land revenue. In the case of ryotwari lands, the ryot holding directly from the Government alone had the right. On payment of the redemption money in full, with the cost of survey and demarcation, the party redeeming the revenue was furnished with a title-deed in a certain prescribed form. The redemption of quit-rent on enfranchised inams introduces the question of the inam tenures of this Presidency, but it is only necessary here to mention that inamdars holding lands enfranchised from service or from resumption by Government, but subject nevertheless to a quit-rent, were allowed until recently to redeem that quit-rent in perpetuity. In the case of the inam title-deeds issued before the 28th February 1895, the sum payable for the redemption of quit rent was fixed at twenty times the amount, but in the deeds issued after that date, it was stipulated that the quit-rent should be redeemed by thirty years' purchase. Having regard to the disadvantages arising from the capitalization of the State's annual revenue from land, Government decided in 1896 that the redemption of land-revenue should be disallowed except in cases in which they had already pledged themselves to allow it. No absolute freeholds can therefore be now newly acquired in this Presidency. The holders of freeholds have unlimited powers of alienation. The freehold is absolute against that demand of the Government only which represents the Government's right to share the produce and gives no immunity from other Government demands, such as for irrigation, roads, sanitation, education and so forth; in all of which cases the land may be subjected to separate cesses or demands. The redemption in no way affects sub-tenures, rights of occupancy, or other similar rights; and the freedom conferred is absolute only against the Government.

Inams enfranchised, but unredeemed.

131. Holders of enfranchised inams, who at the time of enfranchisement were granted the option of redeeming at any time the quit-rent payable on their lands, but have not availed themselves of the concession, have full power of alienation and pay quit-rent, but such quit-rent is not liable to periodical revision.

Zamindaris.

132. In the case of zamindaris, the land has been assigned in perpetuity with a proprietary title as against the Government. The land revenue, technically called "peshkash," is a charge on the land. Zamindars hold under a deed termed a "sanad-i-milkeut istimrar" and give in exchange a corresponding kabulyait or acceptance. Act II of 1904 declares certain estates to be impartible and also

inalienable beyond the life-time of their proprietors except in circumstances which entitle the managing member of a joint Hindu family, not being the father or grandfather of the other co-parceners, to make an alienation of the joint property binding on the shares of the other co-parceners independently of their consent. The alienation of an impartible estate beyond the life-time of its proprietor for the payment of land revenue due to Government is also prohibited unless the written consent of the Collector of the district in which the estate is situated is first obtained. In the case of zamindaris not brought within the scope of the Act, the proprietors are at liberty to transfer, without the previous consent of the Government, their right in the whole or part, however small, of their zamindaris to any person they please by sale, gift, or otherwise; and such transfers are to be held valid and to be respected by the courts and officers of Government, provided that they are not repugnant to the Muhammadan or Hindu law or to the regulations of the British Government. In order to be valid against the Government, and in order to liberate the transferer from his liability to pay Government dues, such transactions must be first registered in the Collector's office and where the alienation is of a sub-division of the estate the peshkash on the sub-divided portion must be determined by the Collector. The Government do not regulate the succession to zamindaris. The position of the cultivators in zamindari estates had not been clearly laid down under Act VIII of 1865. Generally the cultivators had occupancy rights and were bound to pay only rent to the landholder. Occupancy rights were, however, gradually trenched upon and in some estates claims were set up inconsistent with such rights. Fresh legislation thus became necessary. An Act (the Estates Land Act) was passed in 1908 repealing the provisions of Act VIII of 1865 and laying down the substantive rights of the landholders and the tenants and the procedure to be adopted in the collection of rents. The land being "permanently-settled," that is to say, the land revenue on it being fixed for ever, extension of cultivation brings no increase of revenue to the State. The fact that the zamindar has to pay a permanently-fixed revenue does not exempt him from liability to general, local and municipal taxes. Zamindars and persons registered as "proprietors" under the Limited Proprietors Act IV of 1911 have the power to appoint the village officers employed in the villages of the estate according to a scale approved by the Collector and the Board of Revenue; the power is, however, subject to the veto of the Revenue Officer in charge of the division. The power to punish village officers is vested in the Revenue Divisional Officer and the Collector, but zamindars and persons registered as "proprietors" under the Limited Proprietors Act IV of 1911 may, if specially empowered by the Board of Revenue, fine village officers in small amounts. About one-fifth of the whole Presidency is under zamindari tenure.

Palayams or unsettled estates.

133. The palayams for which no sanads have been granted are called unsettled palayams. The important difference between unsettled palayams and zamindaris is that in the case of the former the Government have the power to resume the grant at pleasure or to alter or revise the conditions on which it is held, as for example by revising the amount of revenue paid by the holder.

Ryotwari Tenure.

134. The ryotwari system of holding under the Government has now been the principal tenure of this Presidency for over three-quarters of a century. The pattadar or registered holder of land under the ryotwari system is, as regards Government, the responsible proprietor of the land entered against his name in the land register of the village, until they pass from his possession by sale for arrears of revenue or in some other legal manner. A registered pattadar may, so far as Government is concerned, alienate, in any manner he pleases the whole or any portion of his holding, provided (i) that unless and until such alienation is registered in the village records, the alienor remains liable for the revenue and all other legal charges due on the land just as if no such alienation had occurred, and (ii) that when the alienation is registered, the alienee takes the land subject to payment of any arrears of assessment or other legal charges due on it, and to the same obligations as those under which it was held by the alienor. If a registered pattadar improves his holding by constructing a tank on it or digging a well, he is not chargeable with any additional assessment for such improvements, but he is not entitled to claim, as of right, any reduction of assessment on account of space occupied by the work. He is bound to pay the assessment fixed on his field or holding, whether cultivated waste or fallow, in the prescribed instalments, unless it be remitted in accordance with the rules

explained in paragraph 221. The assessment is determined under the rules described in paragraphs 205 to 216. The registered pattadar is entitled to work minerals on his land, but is liable to pay therefor a separate assessment in addition to the assessment above referred to which is for surface-cultivation.

Application for land.

135. When there are assessed lands in a village unoccupied, it is open to any individual, whether resident of the village or not, to apply for the land to be held by him under the terms of the ryotwari tenure. Applications by strangers are generally communicated to the villagers so that they may have the option of applying for them, and, save in exceptional circumstances, it is only when they do not agree to take up the lands that strangers are permitted to obtain them. When there are two or more applicants for the same land, preference is ordinarily given to the pattadar whose land adjoins, and when there is no such claimant, to the first among the applicants who is a pattadar of the village in preference to a stranger. But, as a general rule, no preferential claim on the ground of possession of the adjoining land, or of land elsewhere in the village, is admitted in favour of a ryot by whose relinquishment or default in payment of revenue the land became unoccupied; or in favour of one who has occupied land adjacent to his holding without application and has not applied for or has refused a patta for such land. In all cases applications for whole survey fields have preference over applications for portions only, but where a survey field exceeds five acres in extent if dry land or two acres if wet, a preferential claim will be restricted to these areas. The applications are in the first instance disposed of by the Tahsildar. From his decision an appeal lies to the Divisional Officer if made within thirty days, and no second appeal is admitted; but powers of revision are given to the Divisional Officer, Collector and the Board of Revenue in certain circumstances where the decision was passed under a mistake of fact or owing to fraud or misrepresentation or if it exceeded the limits of authority possessed by the officer passing it.

Transfer of registry.

136. Applications for the transfer of registry of pattas are made in the office of the Collector or of some other duly authorised officer. If the application attested by the village officers is presented by both the parties or if it is supported by a decree of a Civil Court evidencing the change of ownership, it is at once granted. But where only one of the parties makes the application, and produces a duly executed and registered deed evidencing the transfer, notice is given in the District Gazette that the transfer of registry has been applied for and that unless objection is made within three months of the date of publication of such notice, the transfer will be ordered. If objection is made, an inquiry is held and according to the result, the transfer is ordered or not. If it is ordered a patta is issued in the name of the transferee at the next annual settlement. Meanwhile, as a rule, the new holder gets possession. In the event of the death of a pattadar, executive orders provide that the village officers should take steps to ascertain who is the proper successor. The Collector, when satisfied, causes a patta to be issued in the name of the presumptive heir or heirs, leaving the question of possession and other rights to be decided in case of dispute in the Civil Courts. The question of revising the rules relating to transfer of registry is under consideration.

Relinquishment.

137. Ryots are allowed to relinquish their lands provided they apply for permission to relinquish sufficiently early in the season to enable others to commence cultivation upon them. The dates up to which ryots are permitted to relinquish their lands vary in the several districts, so as to follow the first rains in each district. The lands relinquished must be accessible to others, otherwise the relinquishment is not accepted. For instance, a ryot would not be permitted to retain all the fields in his holding except the central one, as this would not be an eligible holding for another ryot.

West Coast.

138. The tenure of the holders of land directly under Government in the districts of Malabar and South Canara is substantially as described above. It was, however, the practice in Malabar and in the Wynaad to register lands in the names of the occupants and to collect the revenue from the latter ignoring the janmi or the proprietor. The Madras High Court having held in 1889 that this practice was illegal, the janmis are now registered by the Collector and are held responsible for the payment of Government revenue. An Act called the Malabar Land Registration Act was passed in 1896 to enable the Collector to ascertain and register the names of the janmis.

Ordinary Inam Tenures of Land.

139. When the State has given up its right to the land revenue, or a portion of it, in favour of an individual or an institution, or to remunerate persons for performing certain duties, the grant is termed an *inam* or *manyam*. In 1858 a Commission was established to examine the titles of the possessors of inams, and of the inams that were confirmed, to continue those that were still required for religious, charitable or village service and to enfranchise those of other descriptions, if the possessors wished, by commuting for a moderate quit-rent the right of the Government to prevent alienation, to resume, or to demand service. Service inams are held revenue free or subject to favourable rates. They cannot be alienated without forfeiture of the favourable tenure. The conditions of the grant must in each case be observed by the holder and the Government claim an absolute right to adjudicate as to the proper fulfilment of those conditions. In the case of village service inams the holders are bound to perform certain administrative duties, and are styled village officers: the succession to these inams is governed by a special enactment, and is hereditary in most districts. The inams attached to the more important village offices have, however, been enfranchised, and the village officers are now remunerated by money salaries.

Land held on Cowles, etc.

140. A cowle is a grant of land free of assessment for a certain period, or subject to favourable assessment gradually rising to full assessment. Until the full assessment is imposed, the holder is subject to the terms of the contract contained in the cowle. The cowle tenure is usually granted to induce ryots to bring under cultivation unpromising waste lands or to plant trees or shrubs for green manure. Lands held under the tope rules are of the same nature, their object being to encourage tree planting. The terms of a cowle reserve to Government the power of re-entry on breach of its conditions.

Farming the Revenue.

141. The principle of farming out the land revenue in certain localities for a certain period has almost disappeared. Some rents, however, still remain in Vizagapatam, Gōdāvari, Chingleput and Salem districts. The old joint-rent system, where the villagers themselves took up the lease and were jointly and severally responsible, has now entirely disappeared. The last trace of it existed some years ago in the hilly parts of the Gōdāvari district.

Mirasi Rights.

142. The rights which go by the name of mirasi must be mentioned here. They are not sufficiently strong to be classed as tenures or rights against the Government, such as zamindari or ryotwari; but they are sometimes more than the mere preferential right to occupy new land and they are recognised by the Government. The only trace that remains now of the special rights of the old communal oligarchies is the claim by certain hereditary mirasidars in Chingleput district to fees upon waste land which may hereafter be brought under cultivation, and upon lands now occupied which may hereafter be relinquished and again re-occupied. These fees were formerly taken from the gross produce before the division of the crop, and were then paid to the mirasidars both by the ryots and by the Government. They are now made payable entirely by the ryots, liberal allowance having been made for them in arriving at the rates of assessment charged on their lands. The fee payable by the ryot under these circumstances is a yearly sum of two annas in each rupee of the Government assessment, this amount being held to represent the old average rate of 3 per cent. of the gross produce of the year. The right to collect these fees is recorded by the Government in the land revenue registers but their collection is left to the mirasidars themselves. The total amount of these fees payable to mirasidars in Chingleput district is very small, but the right is tenaciously maintained, and represents what was in former days a highly important institution.

Unassigned Lands.

143. Unassigned land within a Government ryotwari village is either the assessed or unassessed. The mode in which assessed lands are applied for and taken up in the first instance has already been described. The unassessed land of a village is at the disposal of the Government. Subject to the instructions of the Government Officers, certain portions are reserved for the gratuitous communal use of the villagers, as tanks, streets, channels, threshing-floor, burial-grounds, cattle-stands, etc., while in all villages, except on the West Coast, a house-site and a backyard, with permission to cultivate garden produce in it free of all assessment, are provided gratuitously for each family. The addition to or subtraction from the area of village-site is provided for by fixed rules. The unassessed waste lands of a village, which are not yet assigned, and are not reserved for these or other special

purposes are available to ryots for cultivation. Applications for such lands are received by the Tahsildar. If, on enquiry, the Tahsildar finds that the land is not required for Government or communal purposes or its grant is otherwise unobjectionable, he will make a reference to the Divisional Officer who, if he agrees with the Tahsildar, will obtain the sanction of the Collector to the transfer of the land to the head of "assessed." If the Collecter sanctions the transfer, it will be granted on patta to the applicant or disposed of under the rules regulating the grant of assessed lands. In the case of specially valuable unassessed lands, the grant of which on patta is not objectionable, the Collector may order the right of occupying the land to be sold by auction to the highest bidder who will be given a ryotwari patta, the land being transferred from "unassessed" to "assessed."

144. Unassigned lands outside the recognised limits of any village are insignificant on the plains, which are fully occupied by village communities, but they abound on the hill ranges where the indigenous tribes have established only a very partial occupation. Special rules have therefore been framed for the sale of waste lands on the Nilgiris (except in seven villages, six of which have been transferred from the Coimbatore district), on the Palnis outside the Kodaikanal Settlement in the Madura district, on the Shevaroy, Kollimalai and Yelagiri hills in the Salem district and on the Kollimalais in the Trichinopoly district. Applications for such lands are received by the Collector. The plot is surveyed and demarcated at the cost of the applicant who is required to deposit the amount in advance. The public is given due notice of the proposed sale of the land and of the date on which it is to be held. If no claims of private proprietorship or exclusive occupancy are preferred in the meantime, the plot is put up for sale on the appointed day at an upset price equal to the cost of survey and demarcation, and the value of the trees standing thereon. The highest bidder above the upset price gets the land subject to the payment of an annual assessment. In the Nilgiris, excluding the Nilgiri-Wynaad, no assessment is charged till the sixth year on forest or grass land newly taken up under these rules and planted with coffee, tea, cinchona, rubber or other special products. Similar lands in the Nilgiri-Wynaad are allowed to be held free of assessment for three complete years.

Tenures other than those under the Government.

145. In a ryotwari country the most important considerations connected with land tenures are those which concern the relations of the Government with persons holding immediately from it. The system of tenancy under such land-holders is however fully developed, registered ryots sub-letting their lands and living on the difference between the rents they obtain and the assessment they pay to the Government. In the districts on the East Coast, lands are generally rented out by the land-holders either for a fixed annual payment in money, or for a share in the produce. Ordinarily dry and garden lands are rented for money and irrigated lands for a share in the produce. In the case of permanently-settled estates every ryot in possession of ryotwari land not being old waste is the owner of the occupancy right in the land in his holding.

South Canara.

146. On the West Coast, tenancies are of a special nature, being more permanent than elsewhere, and the lands being generally leased out for a number of years. In South Canara, tenants are of two kinds, mulageni and chalageni. The mulagenis are permanent tenants under the mulawargdar or landlord, paying a fixed and invariable rent. These tenancy rights have been for the most part obtained from the landlord as grants in perpetuity on payment of a fine and on condition of paying annually a specified rent. Such tenants cannot be ousted except for non-payment of rent, and even in this case not till they have been fully recompensed by the landlord for the permanent improvements they may have made on the lands. Subject to payment of rent, they are at liberty to sub-rent, mortgage or in some cases to sell their interest, and are rather a description of subordinate landlords than mere tenants. On failure of heirs the title lapses to the landlord. In granting land on mulageni tenure, conditions are now often imposed which are never found in the ancient deeds, *e.g.*, that on the rent falling into arrears or the trees standing on the land being wilfully destroyed, the lease shall be forfeited. The chalagenis are temporary ryots under the mulawargdars or mulagenis, their lease is for a limited term, usually one year, or even at will. In the case of these tenants the landlord has the right to raise the rent or oust the tenants whenever he pleases, when no period is fixed, after however reimbursing him for all permanent improvements made by him. Practically the tenants are seldom ousted unless they are

heavily in arrears. In some large estates there is an intermediary tenancy, when the tenants have no written leases, but are in practice treated as mulagenis. The rents of mulagenis and chalagenis are paid either in money or a certain quantity of grain, and never by a share of the crop as in other parts of the Presidency.

Malabar.

147. In Malabar the principal tenures under which lands are held by tenants are Kanam, Panayam, Kuzhikkanam and Verumpattam. In the first two cases the tenant has some pecuniary interest in the land. In the case of Kanam the rent is paid to the janmi (landlord) after allowing the tenant a deduction on account of the interest on the sum advanced and the Government revenue of the land. This agreement generally extends over a period of twelve years, on the expiration of which it may be renewed or revoked. If the deed is renewed, the janmi usually claims a fee or allowance calculated at 20 per cent. or more on the amount originally advanced. The sum so paid is not shown in the deeds, nor is it returned to the tenant at any time. If the janmi desires to resume the land, he has to make over to the tenant the whole of the deposit money and the value of any improvements which may have been effected by the tenant. This cannot be done before the expiration of the term of twelve years. If, in the meanwhile, the land deteriorates through the neglect of the tenant, he has to pay compensation to the janmi for the damage thus sustained. In the case of Panayam, possession of land is given as security for a certain amount advanced. Rent is paid to the janmi after deducting the interest on the sum advanced at the rate specified in the deed. In some cases, when the deed provides that the mortgagee should pay the Government revenue, a sum on this account is also deducted from the rent payable to the janmi. When there is no period prescribed in the deed, the janmi may, whenever he likes, take back the land on payment to the mortgagee of the sum advanced. Unoccupied waste lands are leased on Kuzhikkanam right, generally for twelve years and sometimes for longer periods, for the purpose of raising buildings and plantations thereon; when the land is returned to the janmi on the expiration of the term, the value of improvements made by the tenant is paid to him. In these, as well as in the two foregoing cases, the right possessed by the tenants on the lands held by them is transferable. The death of either tenant or landlord does not affect the lease when there are surviving members in the family of either. Another kind of lease called Verumpattam, or simple lease, is generally for one year and sometimes for longer periods, and is terminable according to the terms shown in the deed. A rent, generally two-thirds of the produce of the land, is annually paid by the tenant to the landlord. In the case of leases for longer periods than one year, the landlord receives in advance the rent for a certain period not exceeding one year. The tenant receives no interest for the amount thus advanced, but on the termination of the lease the said amount is either repaid to the tenant or credit given him for the same against the rent due by him, There is also another kind of lease known as Undarati, under which the landlord receives in advance the rent for a certain number of years and the land is let out to the tenant for the same period. The tenant has no more payments to make to the landlord. When the period expires, the land is returned to the landlord. This kind of lease is generally applicable to plantations. With a view to checking the practice of eviction of tenants in Malabar and to secure to the evicted tenants the full market-value of improvements effected by them an Act was passed in 1887. The language of the Act (I of 1887), however, gave room for diversities of construction and the result was that the object originally contemplated was frustrated in several cases. A new Act (I of 1900) has now taken its place. This has rectified the defects of the old Act not only as regards ambiguous and confusing language but also with regard to the principles to be followed in calculating the amount of compensation payable to the tenants.

SYSTEM OF SURVEY.

Introduction.

148. Indian land surveying is of three kinds—Trigonometrical, Topographical and Revenue or Cadastral.

Trigonometrical Survey.

149. Trigonometrical survey is divided into three distinct branches—First, the selection of sites for base-lines to form the ends of a series of triangles, the setting out of the base-lines and their measurement, with the utmost possible accuracy. Each base-line becomes the side of a triangle, the length of the other two sides of which can be ascertained by angular observations. Second, the construction of the series of triangles. This is done by determining the position of selected points on the earth's surface by angular observations taken at first from the ends of a measured base, and then carried on from point to point in succession, so as to form a network of positions fixed by this triangulation along a belt of country. The accuracy of the work is checked by the base-line at the other end of the series of triangles. The primary triangulation is completed by a sufficient number of such belts across the area to be surveyed both in the direction of latitude and longitude. Third, astronomical observations for latitude and longitude. These are taken at selected points in the network of triangles and operate as a further check on the accuracy of the triangulation. The positions of a sufficient number of points spread over the area to be surveyed are in this way fixed with the greatest accuracy.

Great Trigonometrical Survey. *1802-1824.*

150. The Great Trigonometrical Survey of the Madras Presidency was carried out by Major, afterwards Colonel, Lambton between the years 1802 and 1824. With the exception of the series of triangles along the West Coast, Colonel Lambton's triangulation has in later years been superseded by what are known as—

(1) the great arc series which extends from Cape Comorin to the Himalayas,
(2) the East Coast series from near Tuticorin to Calcutta, and
(3) the Madras longitudinal series of which the two ends are Madras and Mangalore.

From the beginning of 1818, the operations of the Great Trigonometrical Survey have been conducted by the Survey of India, which is an Imperial Department with head-quarters at Calcutta.

Minor triangulation. *1879-1886.*

151. The Madras Survey Department carried out between the years 1879 and 1886 a minor triangulation of the hill tracts of Gōdāvari, Kistna and Guntūr districts, the Nallamalais in Kurnool, the Javadis in North Arcot, the Shevaroys and Kollimalais in Salem, the Warsanad hills in Madura, the Biligirirangan hills and the Anamalais in Coimbatore, the Attipadi valley in Malabar and South-East Wynaad in the Nilgiris. The Madras Survey triangulation consisted of the breaking up of the large triangles of the Great Trigonometrical Survey into smaller ones and the determination of the latitudes and longitudes of the minor trigonometrical stations with almost the same rigorous accuracy as in the Great Trigonometrical Survey.

Longitude.

152. The longitudes of all the trigonometrical survey stations in India are referable to the Greenwich Meridian, taking that of the Madras Observatory as 80° 18′ 30″ east, as at first determined by Colonel Lambton. With the introduction of modern instruments of observation and the adoption of more accurate methods of calculation, this value was found to require a correction of 1′ 9″ to make it accord with the Great Trigonometrical Survey. This reduced value, viz., 80° 17′ 21″, has been adopted in all calculations made by the Madras Survey Department. The most recent value arrived at by the Survey of India is 80° 14′ 54″.

Topographical Survey. *1840.*

153. The earliest topographical surveys were made by officers of the Madras Quartermaster-General's Department at the end of the eighteenth century. The topographical survey of the Madras Presidency was completed by about the year 1840 and the results of the survey were embodied in 23 Ordnance sheets or, as

they are called, sheets of the Atlas of India, published by the Surveyor-General's office, Calcutta, on the scale 1 inch = 4 miles. The atlas sheets are revised at Calcutta from time to time as the materials of later topographical surveys and of cadastral surveys become available; they are published in quarter sheets. Up to the present, 34 quarter sheets relating to the Madras Presidency have been revised and published.

By the Madras Survey Department. *1858–1886.*

154. When the cadastral survey of the Presidency was first instituted in 1858, the topographical survey, which had till then remained under the direction of the Surveyor-General, was amalgamated with the cadastral survey. Up to 1878, the topographical survey of hill tracts by the Madras Survey Department was not based on any trigonometrical points, the cadastral survey traverse stations at the foot of the hills being the only fixed points the topographical surveyors had for starting and closing their work. Since 1878, however, the topographical survey of large hill tracts was based on Madras Survey minor triangulation, starting from and closing on stations of the Great Trigonometrical Survey of India. The great and minor Trigonometrical points were projected in office on the scale of 1 inch to the mile on plane table sheets on which was also plotted any traverse work that might have been executed in the tract under survey. The sheets were then mounted on plane table heads and sent to the field, where topographical features, such as hills, rivers, tanks, village-sites, roads, etc., were delineated on them. This method, however, was still defective inasmuch as the hill contours were not drawn with reference to heights.

In Zamindaris.

155. In the case of large zamindaris, such as Rāmnād and Sivaganga, to which the operations of the cadastral survey did not extend, the exterior boundaries and some interior divisional lines were traversed with the theodolite and the traverse work was plotted on plane table sheets. In the case of proprietary estates and other non-ryotwari villages of small area, which are often surrounded by ryotwari land, it generally happened that the true boundaries had already been demarcated and surveyed with the theodolite. For large zamindaris, the scale of the map was either 2 inches or 1 inch to the mile. For small proprietary estates, the scale was 4 or 2 inches to the mile.

By the Survey of India Department. *1886–1902.*

Additional area cadastrally surveyed. *1898–1909.*

156. The topographical survey was transferred to the Survey of India in 1886 and that department was expected to complete the survey of 13,508 square miles of country which had been excluded from the operations of the Madras Cadastral Survey in the districts of Ganjām, Vizagapatam, Trichinopoly, Madura, Tinnevelly, Malabar and South Canara. Of this area 3,301 square miles have since been cadastrally surveyed, the Madras Survey Department having surveyed 2,201 square miles in the districts of Ganjām and Vizagapatam, while the area (1,100 square miles) of the State of Pudukkōttai in the Trichinopoly district has been surveyed by a survey party organised by that State. A considerable portion of the remaining area was surveyed during the course of forest surveys made by a party of the Survey of India Department.

Fresh topographical survey of the whole of India ordered.

157. As a result of the report of the Indian Survey Committee, which visited the various provinces in the years 1904 and 1905, the Government of India decided that a fresh topographical survey of the whole of India should be made by the Survey of India Department. This survey was commenced in the Presidency in 1907 and, as explained in paragraph 178 below, the cadastral work of the Madras Survey Department has been accepted by the Survey of India in all tracts where surveys were made on a traverse basis.

Revenue or Cadastral Survey.

158. Revenue or cadastral survey constitutes the bulk of the work of the Madras Survey Department. The object of a cadastral survey is briefly the delimitation of village and field boundaries, the preparation of village and field maps showing these boundaries and topographical details, and of area lists and field registers, the former giving the area of each village, field and recognised subdivision of a field, and the latter containing particulars as to the number of fields and sub-divisions, tenure, ownership, etc.

Experimental Revenue Survey in South Arcot. *1853.*

159. Before 1853 no cadastral survey had been attempted in the Madras Presidency and the only data available for revenue purposes were the original 'paimash' measurements, carried out by unskilled agency, from which no maps were, or could be, plotted. In 1853 an experimental survey of villages in the South Arcot

district was instituted. During the two succeeding years the subject of a general survey of the whole Presidency was fully discussed, and in December 1856 the Court of Directors sanctioned the appointment of a Superintendent of Revenue Survey. After the organization of the necessary establishment, the revenue or cadastral survey of the Presidency was commenced in 1858.

160. The Madras Cadastral Survey comprises four distinct processes, viz., demarcation, survey, mapping and publication, each of which is described below in detail.

Demarcation.

By the Settlement Department. 1858–1866.

161. The demarcation of boundaries of villages and fields was at first undertaken by the Settlement Department. About the end of 1864 it was ordered that in all districts to be taken up thereafter, demarcation should be performed by the Survey Department, but this order was not carried into effect until 1866. By that time the Settlement Department had completed the demarcation of the whole of the area corresponding to the present districts of Gōdāvari, Kistna, Guntūr, Kurnool, Cuddapah, Nellore, Salem, Trichinopoly and Tinnevelly, and of five taluks of Coimbatore, of three taluks in the present Chittoor district and of one taluk in North Arcot. The trijunctions of villages were marked with stones, about one square foot in section and $3\frac{1}{2}$ feet high, or with masonry pillars, 2 feet square and 3 feet high. Secondary pillars or stones, a little smaller than those just mentioned, were also fixed, one on each side of the trijunction mark, *i.e.*, at the bends or corners of the village boundary next to the trijunction. The demarcation of the rest of the village boundary with durable marks was not considered necessary. The cultivated portions of each village were divided into khandams (divisions) of about 50 acres each. Two or more adjoining patta holdings were combined to form a survey field, the size of which was limited to 2 acres in wet land and 4 acres in dry land. During field demarcation, a field register was prepared for each village showing the nature of cultivation, tenure, reputed ownership and extent by paimash of each survey field and of the holdings included in it. In a column provided for the purpose, the area by survey was entered in office after the necessary calculations had been duly checked. The demarcation of khandam and field boundaries in Gōdāvari and Trichinopoly districts and in the taluks of Bandar and Gudivāda of Kistna district was carried out with earthen mounds which disappeared in course of time, thus necessitating a re-demarcation and re-survey. In certain taluks in the districts of Nellore, Salem and North Arcot, as the demarcation marks as originally fixed were not of a durable kind, they were replaced subsequently by cut stones.

By the Survey Department. 1866 and onwards.

162. In 1866 when the Survey Department undertook demarcation, the average size of khandams was raised from 50, first to 80 acres and afterwards to between 100 and 150 acres. As regards survey fields, the limits of size, which had been observed by the Settlement Department, viz., 2 acres in wet and 4 acres in dry land were retained. The Survey Department also sub-divided such waste lands as were likely to be taken up for cultivation within two or three years, the size of survey fields formed being 4 acres in wet and 10 acres in dry land. In the year 1874, the clubbing of patta holdings in dry land of little value was permitted up to a maximum of 12 acres. In 1885, when the survey of the Tanjore district was ordered, the clubbing of wet holdings up to a limit of 4 acres was sanctioned, subject to the condition that the holdings clubbed should be irrigated from one and the same channel. In 1887, in accordance with the recommendations of the Survey and Settlement Committee, the maximum size of survey fields was fixed at 6 acres in wet and 12 acres in dry land. But, as the enforcement of this rule led to the formation of survey fields containing, especially in the Malabar district, an inconveniently large number of sub-divisions (patta holdings) the boundaries of which it was very difficult to trace on the ground, the number of patta holdings to be clubbed to form a survey field was limited in 1894 to 10. The clubbing of holdings to form survey fields was dispensed with wholly in the Chicacole taluk of the Ganjām district and every holding was treated as a separate survey field. The same principle, with some modifications, was followed in the other two taluks of that district. The average size of a survey field in Ganjām was thus 1·71 acres against the Presidency average of 4·49 acres.

Stones used by the Survey Department.

163. The initial demarcation of ryotwari villages of the Presidency to which it was originally proposed to confine Cadastral Survey was completed in 1896.

The following were the dimensions of the different kinds of stones used for demarcation :—

Class I—Village boundary stations	3′ × 9″ × 9″
„ II—Khandam stations	2½′ × 8″ × 8″
„ III—Boundary offsets	2′ × 6″ × 6″
„ IV—Field stones	2′ × 5″ × 4″

Where stone was cheap and quarried in the taluk, the size of field stones was the same as that of boundary offsets. All stones bear the broad arrow on one side. Stones of the first two classes have in addition a plummet hole on the top and stones of Class III a St. George's cross cut on the top. The use of stones of Class IV has now been abandoned in favour of those of Class III. Stones used to demarcate sub-division boundaries bear the letter S on the top in addition to the broad arrow on the side.

Revenue Survey. Theodolite Survey.

164. Survey comprises two principal operations, theodolite survey and cadastral survey. The object of a theodolite survey is to provide a sufficient number of fixed points for the cadastral survey. For this purpose, the villages of a taluk were grouped into convenient blocks, called main circuits, varying from 100 to 150 square miles in extent. First, the main circuits were surveyed with theodolite and chain, and then the village and khandam boundaries. To secure strict accuracy, the distances on the main circuit boundary were measured twice, first by the theodolite surveyor and again by another person called the re-chain surveyor who followed him. The angular work of the main circuit was checked by observations for azimuth taken at intervals of 40 or 50 stations. The main circuit traverses were set up in office, *i.e.*, the angles and distances were copied into traverse sheets and the bearings, latitudes and departures computed. The main circuits were connected with stations of the Great Trigonometrical Survey and the distance according to the Cadastral Survey between every two Great Trigonometrical Survey stations was compared with the Trigonometrical distance. The average error for the distances so compared has been found to be 7·28 feet per mile for the whole presidency.

Average error per mile in Theodolite Surveys.

Comparison of Theodolite Survey with the Great Trigonometrical Survey.

1877.

165. From the commencement of the cadastral survey of the Presidency up to 1877, the cadastral survey distances were merely compared with the Great Trigonometrical Survey distances and the difference noted, but no attempt was made to correct the former so as to bring them into agreement with the latter, as the traverses were not worked on any one meridian common to main circuits, taluks or districts. From 1878 to 1891, the following method was adopted. A Great Trigonometrical Survey station situated as near as possible to the centre of a district was selected as the origin of co-ordinates for the traverse work of the district. The main circuit traverse started from a Great Trigonometrical Survey station in the vicinity of the circuit and closed on another Great Trigonometrical Survey station. The true azimuths on the main circuit boundary were corrected for convergency with reference to the meridian of the Great Trigonometrical station of origin. The rectangular co-ordinates from the Great Trigonometrical station of origin to the two Great Trigonometrical stations introduced into the main circuit traverse were computed, and with reference to the difference between these two co-ordinates the cadastral survey latitudes and departures were corrected. The corrections in the main circuit traverses were carried to the village and khandam traverses.

1878–1891.

Selection of origin of co-ordinates.

System of Theodolite Survey adopted.

1892.

166. In the year 1892 the theodolite survey of village and khandam boundaries was discontinued as being too costly for the localities which then remained to be surveyed. Villages were divided into triangles with sides about half a mile long and the three angles of each triangle were observed. Base lines were measured at convenient intervals and the lengths of the sides of the triangles computed. With the exception of the trijunctions of villages, the stations used for this triangulation were generally not boundary marks. This system was adopted for twelve taluks in the districts of Malabar, South Canara and Anantapur. In these taluks, traverses were harmonised with Great Trigonometrical Survey co-ordinates, but not with reference to a central station of origin. The main traverses started from one Great Trigonometrical station and closed on the next. The Revenue Survey latitudes and departures between the Great Trigonometrical stations were compared with the rectangular co-ordinates from one Great Trigonometrical station to the

other and corrected to agree with them, but the bearings of the Revenue Survey traverses were not corrected for convergency of meridian. The method now in use for harmonising traverses is the same as that adopted from 1878 to 1891 except that the origin for each district is the nearest intersection to the centre of the district of parallels of latitude and longitude to whole minutes. All the traverse surveys of the department are being harmonised on this method, and 15′ traverse charts showing the rectangular co-ordinates of all village trijunctions are in course of preparation.

Present method of harmonising traverses.

167. The method of measurement of individual properties and holdings underwent several changes as the survey progressed. From 1858 to 1865 survey fields were measured on the khasra method according to which, if the field was quadrilateral, the four sides were measured or, if the field was irregular in shape, it was divided into convenient quadrilaterals or triangles or both and their sides measured. The rule was that the diagonal of every quadrilateral should be measured, but this was not always done. Some of the measurement books prepared under this system contain a sketch of each field not plotted to scale, but in others there are no sketches of any kind. The measurement books were supplemented by a sketch for each khandam in which the boundaries of the fields and the sides of the quadrilaterals and triangles with their measurements were shown but these sketches were subsequently destroyed. The khasra method of measuring fields enabled the field surveyors or amins, as they were then called, to calculate the areas of fields, by multiplying in quadrilaterals the mean of the two opposite sides, or in triangles by multiplying the two shorter sides, and taking half the product. This incorrect method of calculating areas was abolished towards the end of 1864, when the computing scale was introduced. The necessity for measuring fields in quadrilaterals having thus ceased, field surveyors were directed in 1866 to measure from stone to stone so as to divide each field into triangles as nearly equilateral as the shape of the field would allow. The measurements were recorded in books of which each page contained a sketch not drawn to scale of several survey fields. A further step was made in 1877 when surveyors were permitted, in cases where the bends on the field boundaries were very numerous, to fix by offsets the position of all marks less than 50 links from a direct line between two adjoining survey stones; but the change was not introduced to any appreciable extent.

Methods of measurement of fields. *1858–1865.* Khasra method.

Khasra areas.

1864. Introduction of the computing scale. *1866.* Triangle system of measurement. *1877.*

168. Towards the end of 1887, as a result of the deliberations of the Survey and Settlement Committee, the measurement of sub-divisions or interstitial fields which, till then, had been made by the Settlement department, was entrusted to the Survey Department. In order to expedite work the use of the plane table was recommended for fixing the boundaries of survey fields but was not used. From the skeleton traverse plot of the village the theodolite stations were pricked off into a "quarter sheet" so named, because it was intended to show an area of about a quarter of a square mile. In this quarter sheet the boundaries of survey fields were sketched in by the surveyor as they were demarcated. The sides of the triangles formed by the theodolite stations were chained and offsets taken to all field marks, and the chain line and offset measurements were entered in the quarter sheet. The outer boundaries of such of the survey fields as contained sub-divisions were also measured but the measurements were not entered in the quarter sheet. A separate record known as the interstitial or sub-division field book was prepared in which were shown the measurements of the outer boundaries of survey fields and sub-divisions and of the quadrilaterals and triangles into which the latter were divided. In the matter of sub-divisions, there was thus a reversion to the condemned khasra method. In all 18 taluks in the districts of Vizagapatam, Bellary, Anantapur, Tanjore, Malabar and South Canara and 33 Kolair lake villages in Kistna, were surveyed on the so-called plane table system, but owing to the absence of the quarter sheets or records of measurement from which the village maps were plotted the resurvey of much of this area has been rendered necessary. In order to minimise the number of survey records, the following method was adopted in 1892. The points fixed during the theodolite survey were plotted on the scale 1 inch = 2 chains or 40 inches to a mile on sheets each of which contained a block of about a quarter of a square mile. The block was divided into large triangles and the boundaries of survey fields as well as of sub-divisions included therein were fixed by offsets taken from the sides of the triangles. All the measurements were entered in blue ink on the block map,

1887. Measurement of interstitial fields entrusted to the Survey Department.

Quarter sheet.

Interstitial or sub-division field book.

Block maps.

Area square.

which thus became a complete record of measurement. The areas of fields and sub-divisions were computed from the block map with the area square which is a piece of tissue paper on which are printed squares and rectangles the former representing 10 cents and the latter one cent each. The methods of survey described above were those adopted for the initial cadastral survey of Government villages which was completed in 1896.

Zamindaris. Theodolite survey.

169. In the cadastral survey of large zamindaris such as Vizianagram the theodolite survey of main circuits, villages and khandams was made on the system which was followed up to 1877 for Government taluks, and the main circuit traverses were harmonised with the Great Trigonometrical Survey co-ordinates very much in accordance with the method described in paragraph 159 above. As regards demarcation and field survey, patta holdings were clubbed up to 4 acres in wet and 8 acres in dry land and the survey fields were demarcated with stone. Each field was divided into one or more triangles. The distances from stone to stone on the field boundary and from bend to bend on the sub-division boundaries were measured first. The sides of the triangles were then measured and offsets taken to all bends on the field and sub-division boundaries. As each field was measured it was plotted in a field measurement book in duplicate with the triangulation measurements and offsets. The scale of the field map was either 1, $\frac{1}{2}$ or $\frac{1}{5}$th inch to the chain according as the area of the field was less than 5, from 5 to 20, or over 20 acres, respectively. The areas of survey fields and sub-divisions were taken with the area square and adjusted with the area computed from the village map with the computing scale. The total area of fields in each village was compared with the traverse area and the difference allowed was 1 per cent. In the case of estates and other non-ryotwari villages of small area which were cadastrally surveyed, the traverses were not harmonised with reference to the values of Great Trigonometrical stations but, with this difference, the method of survey was the same as that adopted for the Vizianagram zamindari. Up to the end of 1911 the cadastral survey of 115 proprietary estates and other non-ryotwari villages with a total area of 5,733 square miles was completed. The unsurveyed area of proprietary estates and other non-ryotwari villages in the Presidency is 46,654 square miles and it seems likely that the survey of most of this area will be required as a result of the Madras Estates Land Act (I of 1908).

Demarcation.

Field measurement book.

Zamindaris.

Forest Survey.

170. When topographical survey work was transferred to the Survey of India in 1886, it was arranged that that department should also undertake the survey of Forest reserves, the necessary demarcation being made by the Forest Department. A Forest Party of the Survey of India has been employed in this Presidency since 1888. Up to the end of 1911–1912 the survey of 13,702 square miles in eighteen districts was completed. Maps are published on a scale of 4 inches = 1 mile. Only forests of which the area exceeds 10 square miles are surveyed by the Survey of India Party. Maps of forests less than 10 square miles in extent are prepared from the published village and taluk maps either by the Forest Department or in the Survey Office, Madras, and printed on a scale of 4 or 8 inches = 1 mile. Final maps have been prepared for 16,195 square miles of reserves surveyed by the Survey of India Party and the local Survey Officers.

Mamul Wet Survey.

Gōdāvari, Kistna and Guntūr districts.

171. In the Gōdāvari, Kistna and Guntūr districts, owing to the introduction of large irrigation projects, considerable areas, which till then had been waste or only fit for dry cultivation, were brought under wet cultivation. In order to levy water-rate on these areas, and also to determine the extent of "Mamul Wet" lands which had been deprived of their original sources of irrigation and were entitled to water free of charge from the new canals, it was found necessary to make a detailed survey of the non-ryotwari villages in the deltas in these three districts. The mamul wet areas were demarcated *en bloc*. The newly irrigated areas outside the mamul wet blocks were formed into survey fields of about 10 acres each and demarcated and measured. The patta holdings within the 10-acre fields were also measured. A field measurement book, field register and map were prepared for each village. For 56 out of 302 villages in the Gōdāvari delta, village maps showing field boundaries were prepared on the 16-inch scale and printed on the 8-inch scale. In the remaining 246 villages, the map served only as a key to the field measurement book as it did not show the boundaries of each individual field but only of blocks of fields; but at the request of the Public Works Department, 8-inch

village maps showing the boundaries of fields have recently been drawn and printed for most of the 246 villages. The survey began in 1890 and was completed in 1896. The area surveyed was 1,226 square miles. In the Ganjām district, a similar survey of inam villages, with an area of 136 square miles, which were affected by the Rushikulya system, was carried out between 1891 and 1894 under the supervision of the Collector. Seven inam villages, with an area of 19 square miles, irrigated by channels from the Pālār anicut in the Walajapet taluk were also similarly surveyed under the supervision of the Collector of North Arcot in the years 1904 and 1905. Owing to the construction of the Periyār water-works, the non-ryotwari villages in the Mēlur, Madura and Dindigul taluks, comprising an area of 88 square miles, were also surveyed during the years 1896–1898. This survey was made in such detail that it was practically a cadastral survey.

Ganjām district.

North Arcot district.

Madura district.

172. For the purpose of determining the village cess, a block survey of whole inam villages was made in the districts of Gōdāvari, Kistna, Guntūr, Nellore, Tanjore and Trichinopoly, in the Berhampur taluk and in the Serugada, Dharakota and Kurla estates of the Ganjām district between the years 1895 and 1902. The villages were divided by Settlement classifiers into blocks according to peculiarities of soil and demarcated with pegs or earthen mounds. The blocks were measured and mapped by the Survey Department and the areas of the blocks entered in the classification registers prepared by the Settlement Department.

Soil Block Survey.

173. A survey of the Madras town was made by the Public Works Department between the years 1854 and 1864. The results of the survey were not wholly adopted in the revenue accounts and as the survey maps were found to be of little or no use for either revenue or topographical purposes, a new survey was recommended in 1891. The new survey was made between the years 1895 and 1897.

Survey of Madras City.

174. It was also considered necessary to make a survey of the mufassal municipal towns and to plot maps on a scale sufficient to make them available for checking encroachments and defining the limits of private and public properties. The survey of 29 towns including Madras has been completed. Every holding was measured, and a field book, or record of measurement, and register were prepared for each of the divisions or wards into which the town was divided for municipal purposes. Ward maps have also been prepared for 25 towns. The manuscript revenue maps are either on the scale of 160, 80 or 40 inches to the mile according as the locality concerned is close, medium or open and the printed maps are on half the scale of the manuscript maps. Topographical maps are also printed on the scale of 20 inches to the mile for each ward or division. The town maps are on the 10-inch scale. Seven more towns, viz., Bezwada, Masulipatam, Anantapur, Calicut, Cannanore, Tellicherry and Cochin were surveyed between 1890 and 1896, while the cadastral survey or resurvey of the taluks in which they are situated was in progress, but not in such detail as the abovementioned 29 towns. The scale of map of these seven towns varied from 32 to 160 inches to the mile. When the maintenance of the survey of the first 28 towns was taken up, the cadastral survey records of the seven towns were re-prepared in the Central Survey Office as far as possible on the town survey method with a view to introduce maintenance into them also. Actual experience having, however, proved the inadequacy of the cadastral survey records for the purpose of maintenance, the seven towns will probably require a re-survey to bring their records into line with those of the other 29 towns. The survey of the remaining towns in the Presidency has been postponed, as no Survey Party can be spared at present to undertake the work.

Municipal Surveys.

Town survey.

Scale of revenue maps.

Scale of topographical town maps.

Scale of town maps.

175. Surveys to mark the limits of streets are in progress or contemplated in the unions of districts where re-surveys and revision surveys are being conducted. Street surveys in the municipalities of Bezwada, Masulipatam, Berhampur, Nellore and Tuticorin have been or are about to be completed by special agencies employed for the purpose with the object of dealing with encroachments.

Street Surveys.

176. The maps prepared by the Madras Survey Department are generally:— **Mapping.**

(1) Atlases of fields on scales 16, 40 and 80 inches = 1 mile;
(2) Village maps—scale 16 or 8 inches = 1 mile;
(3) Outline sheets of 15 minutes square—scale 1 inch = 1 mile;
(4) Taluk and zamindari maps—scale 1 inch = 1 mile;
(5) District Touring maps—scale 1 inch = 4 miles.

Field atlases.

Field atlases are now plotted by surveyors during the course of measurement on sheets (size 12 by 10 inches) of 80-pound paper.

The scale depends on the area and is as follows :—

Up to	5 acres	80	inch scale.
„	20 „	40	„
Over	20 „	16	„

Village maps.

177. Village maps are now plotted in the head-quarter office of each party. The village and division boundaries are first plotted with the aid of the traverses computed from the theodolite survey field books. Starting from the points thus fixed, the fields measured during the field survey are plotted, the field boundaries inked and the field numbers typed and the village map completed in other respects.

Methods prior to *1878*.

Prior to 1878 village maps were not prepared in a style suitable for reproduction by photography nor were they drawn on sheets of uniform size. From that year a standard size was adopted of 40 by 27 inches for full sheets and 27 by 20 inches for half sheets.

Methods from *1878*.

All coloured lines, connecting traverse stations and colour ribands indicating wet and dry cultivation, which were drawn on the face of the maps prepared in former years, were relegated to the back ; and the detail shown on the face of the maps was drawn specially with a view to reduction by photography to the scale of 8 inches to a mile.

1892–1896.

In the block maps prepared on the 40-inch scale between the years 1892 and 1896 the field and sub-division boundaries and the topographical details drawn in blue were inked and the field numbers typed in black sufficiently thick to stand photo-reduction to the 16-inch scale, but the chain lines, offsets and measurements which were not required to appear in the village map when published, were left in blue.

Preparation of village maps from block maps.

For villages mapped on the 40-inch scale a skeleton map was prepared on the scale of 16 inches to a mile showing only the points fixed by the theodolite.

Outline sheets.

178. Outline sheets are prepared to assist the Survey of India in the togopraphical survey of the Presidency now in progress (see paragraph 157). The rectangular co-ordinates of the four corners of a sheet 15 minutes square (the general size of a standard sheet of the Survey of India) are worked out from the district origin ; such village trijunctions as fall within the sheet are plotted therein by their rectangular co-ordinates obtained as stated at the end of paragraph 165 above and the interior parallels of latitude and longitude at 5 minutes intervals drawn. Pantagraph reductions of village maps, showing all details, save hill contours, are then traced on to the sheet in blue and inked in black for reproduction by the Vandyke process.

Supply of outline sheets to the Survey of India.

Six copies of each sheet on bank post paper and six on tracing paper are supplied to the Survey of India.

Acceptance of Madras surveys by the Survey of India.

The acceptance of the work of the Madras Survey Department was decided on only after a careful scrutiny by the Survey of India of the value of the traverse surveys both in office and in the field. The test in the field was made in Malabar where fewer theodolite points were fixed than in the districts surveyed before 1892 and the result, to quote the words of the Superintendent, Southern circle, Survey of India, was such as to justify the acceptance of the work of the Madras survey as equal to revenue surveys performed by the Survey of India. It is expected that the supply of these outline sheets to the Survey of India will materially lessen the cost of the topographical survey of the Presidency as first estimated.

Taluk maps.

179. For the compilation of taluk maps different methods were adopted at different periods :—

1878.

(1) Up to 1878 taluk maps were not drawn on geographical projections. The boundaries of main circuits and of villages were plotted by traverse on the scale 1 inch = 1 mile and the detail within them was filled in from pantagraph reductions of the village maps.

1879–1886.

(2) From 1879 to 1886 taluk maps, scale 1 inch = 1 mile were drawn on sheets on which were previously projected lines of latitude and longitude, Trigonometrical stations and main circuit trijunctions. Some of the village trijunctions were also plotted by traverse. The topographical details were filled in from pantagraph reductions of the village maps. Either the whole taluk was contained in two or more sheets joined together or each sheet contained 15 minutes of latitude and 30 minutes longitude.

1887–1894.

(3) From 1887 to 1894 projections were prepared on the scale 8 inches = 1 mile showing lines of latitude and longitude, Trigonometrical stations and main circuit trijunctions. Eight-inch lithographed village maps were fixed on to the

projections. Over these were pasted in their proper places printed slips of paper showing in an exaggerated style the details required to appear in taluk maps.

(4) From 1895 to 1901 projections were prepared on the scale 2 inches = 1 mile showing lines of latitude and longitude, trigonometrical stations and a few village trijunctions. Sixteen-inch or 8-inch lithographed village maps were reduced by photography to the scale of 2 inches to the mile and printed in pale blue ink. The blue prints were joined together on the 2-inch projected sheets (with reference to the trigonometrical stations and other fixed points) and the details, etc., required to appear in the taluk map when printed were drawn over in black for photo-reduction to the 1 inch or $\frac{1}{2}$ inch scale. *1895–1901.*

(5) From 1902 to 1910 taluk maps were prepared in the manner last described above but instead of the 2-inch reductions being obtained by photography from the village maps, the latter were reduced by the pantagraph and the details traced on to the 2-inch projections from the pantagraph reductions. The values of all the village trijunctions were determined and plotted in the projections. The map was drawn for photo-reduction to half scale, *i.e.*, 1 inch = 1 mile. *1902–1910.*

(6) Taluk maps are now being prepared from the outline sheets, described in paragraph 178 above corrected by comparison with the Survey of India standard sheets and by the adoption of the hill contours in those sheets.

180. The methods of compiling district maps from time to time were similar to those adopted for taluk maps. Of late years district touring maps without hill contours roughly corrected by the help of district officers in districts where no recent survey had been made have taken the place of the old type of district maps. In future these will be drawn from the taluk maps prepared as explained in item 6 of the preceding paragraph. **District touring maps.**

181. The processes adopted in the Central Survey Office for printing maps are chiefly lithography, photo-zincography, cyanotype, vandyke and helio-zincography. Village maps coloured on the face and unsuited in other respects for reproduction by photography were copied on hand-transfer (paper coated with flour-paste and gamboge) and lithographed. The first attempt by the Madras Survey Department to make photography serve the purpose of printing maps was in 1873, but the art was not applied to village maps until 1878. In the latter year, zincography was also introduced. Village maps on the 16-inch scale have since then been reduced to the 8-inch scale and zincographed. Where manuscript block maps were prepared on the 40-inch scale they were reduced by photography to the 16-inch scale. The boundary lines and topographical details drawn in black were reproduced in black but the measurements, etc., which would overcrowd the 16-inch map did not appear in the photograph as they were recorded in blue ink. The photo-carbon transfers were fitted on to the 16-inch skeleton accompanying the block maps which was then transferred to zinc and copies of the village map printed. Vandyke and helio-zincography were introduced in 1905. **Publication.** *1873.* Photography first used. *1878.* Zincography first used.

182. At present 41 copies are printed of each village map. Thirty-four copies, of which one copy intended for the karnam is on pegamoid cloth, are supplied to the Collector and two copies to the Settlement Department. The remaining five copies, of which one is on pegamoid cloth, are lodged in the Central Survey Office. For many villages, however, the stock in the Survey office is only one and in some cases is *nil*, copies having been used up for the compilation of taluk maps, etc. Forty copies were printed of the village maps of South Canara district and 50 copies of those of Wynaad taluk. In the former 30 copies and in the latter 40 copies of each map were supplied to the Collectors concerned. No village maps were printed on cloth before 1891 nor any on vellum prior to 1870. **Village maps.**

183. Up to 1886, taluk and district maps were either photographed to scale or copied in the Central Survey Office on hand-transfer and printed by the process of zincography or lithography according as the maps were drawn in a style suited for reproduction by photography or not. Taluk maps, drawn from 1887 to 1893 on the 8-inch scale, were reduced by photography to the 1-inch scale, the carbon transfers were joined together on a 1-inch projection, transferred to zinc and copies printed. From 1901 to 1910, taluk and district maps were reduced by photography and printed in blue by what is called the cyanotype process which was introduced in 1901. Since 1910, taluk and district maps have generally been printed by the helio-zincographic or by the vandyke process. **District and taluk maps.**

Re-survey.

184. In some of the districts first surveyed the demarcation of fields was not of a permanent character and in others a large percentage of the stones fixed had disappeared. The sketches of interstitial field measurements made by the Settlement Department were generally missing, and in the few instances in which they did exist. it was not found practicable to incorporate them into the field measurement books prepared by the Survey Department. No attempt had been made to maintain the survey as an accurate contemporary record, and the maps originally prepared were out of print and discrepant with actual conditions. For these reasons, a fresh survey was ordered in sixteen districts. The nature of the operations which have to be undertaken in tracts where the original survey is found defective varies in accordance with the value of the records and the permanence of the demarcation left by the original survey. Where these afford sufficient material to allow of the replacing of missing stones and the plotting of separate maps of survey fields, the work to be done consists mainly in measuring, plotting and mapping subdivisions effected since the original survey and the process is called a revision survey. Where they are not sufficient for these purposes, the measurement and plotting of the survey fields has to be done over again and the work is called a re-survey. The standard of outturn now adopted is 400 square miles per annum for revision surveys and 350 square miles per annum for re-surveys.

1891. Resurvey of Trichinopoly and certain taluks of Gōdāvari, Kistna and Guntūr districts.

185. Trichinopoly was the first district taken up for re-survey. The re-survey began in 1891. The earthen mounds erected during the original demarcation had all disappeared and the re-demarcation and re-survey, therefore, followed occupation disregarding the original survey field boundaries and numbers. New survey fields were formed by clubbing holdings up to 6 acres in wet and 12 acres in dry land. The re-survey was made on the block map system described in paragraph 162 above. No fresh theodolite survey was made, nor were any of the missing theodolite stations of the original survey replaced with the theodolite. Certain taluks in the districts of Gōdāvari, Kistna and Guntūr were re-surveyed on the system adopted for Trichinopoly. The re-survey of these tracts and of those described in the next paragraph was done almost entirely by the agency of village karnams with insufficient supervision, at a cost including mapping of from Rs. 83 to Rs. 40 per square mile. The re-survey of the Trichinopoly district is reported to be unsatisfactory and the taluk of Trichinopoly is being again re-surveyed as a test before deciding on a fresh re-survey of the other taluks of the district, and it has also been decided to carry out a re-survey of Tenali and Repalli taluks now in the Guntūr district.

1893. Re-survey of Salem and certain taluks of Gōdāvari, Kistna and Guntūr districts.

186. The re-survey of the five southern taluks of the Salem district was commenced in 1893. As in Trichinopoly the re-demarcation in Salem followed occupation, but, with a view to reduce the cost of work, no alterations were made either in the original size or numbering of the survey fields. Each field was divided into triangles. Distances from stone to stone on the field boundary and from bend to bend on the sub-division boundaries were measured, as also the sides of the triangles from which bends on field and sub-division boundaries were fixed by offsets. A field measurement book showing the re-survey boundaries of the fields was plotted to scale, but not the village map. In a lithographed copy of the original survey map, the scale of which was 16-inches = 1 mile, the field boundaries (which might differ slightly from the demarcated boundaries shown in the field measurement book) were inked in black and a photo reduction of this copy to the 8-inch scale served as a key to the position and shape of the survey fields. Two taluks of the Gōdāvari district, two taluks of the Kistna district, and one taluk of the Guntūr district, were re-demarcated and re-surveyed on this method.

Re-survey of certain taluks of Guntūr, Kurnool, Salem, Coimbatore and the whole of Tinnevelly.

187. The re-demarcation and re-survey of six taluks of the Guntūr district, of the whole of the Nellore district, of four taluks in the Kurnool district, of the four northern taluks of the Salem district and of four taluks of the Tinnevelly district, were made on the system just described, but the village maps are correct plots on the 16-inch scale and not copies of the old lithographed maps. Re-survey on the same lines, except that a fresh theodolite survey was required, as it was found that angles had been observed on pegs during the initial survey, has been completed in the Sankaranāinarkoil and Koilpatti taluks of the Tinnevelly district, in Sāttur and Srīvilliputtūr taluks of Rāmnād and in the taluks of Coimbatore and Palladam in the Coimbatore district as well as in the greater part of the Pollachi taluk.

188. A revision survey, in which all missing stones are replaced and only such of the fields as contain sub-divisions are remeasured on the triangle and offset method and the village maps are tracings of the original survey maps, has been completed in the Ganjām district and in four taluks of Kurnool, and in the Cuddapah and Chingleput districts. It is in progress in the North Arcot and Chittoor districts and in the taluk of Kadiri now belonging to the Anantapur district. Revision surveys in Ganjām, Kurnool, Chingleput, North Arcot, Chittoor and Anantapur districts.

189. Whether in initial surveys, in re-surveys or in revision surveys the field register prepared by the Survey Department followed, till very recently, the adangal of the latest fasli; but the adangal did not always agree with the actual occupation on the ground. The survey, which was confined to the holdings as recorded in the field register, was thus incomplete and the omission was supplied at great expense of time, labour and money during the course of the settlement operations. To avoid this state of things, it was ordered in 1905 when the revision survey of the Ganjām district was in progress that, before the demarcation and measurement of holdings was taken up by the Survey Department, a special Revenue Staff working under the orders of a Special Revenue Officer under the control of the officer in charge of the Survey Party should make the necessary preliminary enquiries and prepare an accurate field register and also mark the position of all sub-divisions and new fields in a lithographed copy of the original survey village map. On completion of the survey, the field register and field measurement book are sent to the Special Revenue Staff for making such inspection of the work of the surveyors in the field as may be necessary to determine the completeness of the work before passing finally the field register and allowing it to be used for the correction of the permanent village accounts. Special Revenue Staffs now work under the orders of the Special Settlement Officers in every district under survey. Field registers. *1905.* Appointment of the special Revenue staff.

190. The question of maintenance of boundary marks and other survey records has engaged attention since 1864. Practical steps to secure this object were not taken until 1893, and it was only after ten years of preliminary effort that a complete scheme was drawn up and accepted. The scheme provides a maintenance staff for each district based on territorial limits and controlled by the Collector. In addition to these local staffs the Presidency has been divided into five groups, each forming the inspection area of a Land Records Superintendent. The Superintendent has no authority to control or supervise. He merely inspects and reports the results of his inspection to District Collectors and to the Director of Land Records to whose control he is immediately subject. The latter officer is subordinate to the Board of Revenue. Till now little progress has been made in the direction of maintenance, for the Permanent Land Records staffs, assisted by large temporary reinforcements, have been engaged, not in maintenance itself, but in operations preliminary to maintenance. These operations have been undertaken owing to the defective state of the records. In the case of districts recently surveyed in which the survey records may be expected to be accurate an enquiry has been undertaken to ascertain whether the scheme sanctioned in 1903 is adequate for the purpose of securing the object proposed, viz., the avoidance of the necessity for carrying out revision surveys hereafter when the districts next come up for resettlement. In other districts the sanctioned scheme of maintenance cannot, so far, be said to have been actually established. **Maintenance.**

191. The legal provisions under which the survey work of this Presidency was conducted up to 1897 were those contained in Act XXVIII of 1860, "An Act for the establishment and maintenance of boundary marks and for facilitating the settlement of boundary disputes in the Presidency of Fort St. George." Under this Act, Government bore the cost of all survey station stones which were not boundary marks and of all boundary marks in unoccupied ryotwari lands and the owners bore the cost of the survey marks which defined the boundaries of occupied fields. For the better maintenance of boundaries after the completion of survey and for the recovery, from the ryots concerned, of the cost of restoring survey marks, Act II of 1884 was promulgated. This Act made the owner or occupier responsible for the maintenance of the boundary marks of his estate and enabled the Collector to enforce the maintenance of demarcation generally and to recover, where necessary, the expenses incurred in the repair of boundary marks from the owner or occupier of land. The two Acts were repealed by the Madras Survey and **Law.**

Boundaries Act IV of 1897 "An Act to amend the law relating to survey of lands and settlement of boundary disputes." While embodying in effect the provisions of the two previous Acts, the new Act empowers the Government to undertake the survey of private estates either *suo motu* for reasons to be recorded prior to the issue of the notification directing the survey, or on the application of the proprietors. The survey under either clause would be conducted at the expense of the proprietors. It also empowers the Collector to enforce the maintenance of survey marks in estates under conditions similar to those prescribed for Government villages. Chapter IV of the Act provides for the settlement of boundary disputes, arising otherwise than in the course of survey, by the Collector himself or by one of his subordinates, specially empowered, or by a Survey Officer specially appointed for the purpose. The Madras Estates Land Act I of 1908 empowers Government under certain conditions to order the survey and preparation of a record of rights for estates.

Establishment.

192. In 1905 the controlling staff of the department was reorganized and the permanent strength now consists of ten officers styled Director, Deputy Director and Assistant Director, respectively. This excludes five officers posted to duty as Land Records Superintendents. The designation Deputy Director will disappear with the retirement of the officers appointed prior to 1900. The department is under the control of the Settlement Commissioner of the Board of Revenue. There are now six Survey Parties, one employed on the initial cadastral survey of proprietary estates, one on re-surveys and four on revision surveys. Besides these, there is the Controlling and Photo-zincographic office in Madras.

SYSTEM OF SETTLEMENTS.

Early Settlements under the British Government.

193. The first general acquisition of territory by the East India Company—the first from a revenue point of view—was the country round Madras, which now forms Chingleput district. The revenue of this tract was assigned by the Nawab of the Carnatic as a contribution towards the expenses of the wars undertaken in his behalf. At first the direct administration was not assumed; the revenues were collected on the native plan; in 1780, however the country was leased out by the Company in large farms on nine-year leases. The renters failed and the estates were sequestered in 1788. The district was then placed in charge of one or two Collectors, as the chief revenue officers were then called, the term being borrowed from Bengal. The most famous of these, Mr. Lionel Place, determined to restore the ancient village organization as the basis of revenue management and settled the amount of the Government revenue with the village councils, leaving it to the villagers to assess themselves individually. This system might have succeeded, but was summarily terminated in 1802. Under the orders of the Court of Directors the district was then divided into estates, each estate being assessed at a fixed sum varying according to its size and resources, and these estates were sold by auction to the highest bidder.

Chingleput. *1780.* *1788.* *1802.*

Northern Circars.

194. The next acquisitions of the Company in point of time were the Northern Circars (administrative divisions) five in number, which form the present districts of Ganjām, Vizagapatam, Gōdāvari, Kistna and Guntūr in the north-east of the Presidency. They were obtained by grant from the Delhi Emperor in 1765 and came at once under British administration. It was found that they consisted of large farms held by large renters called zamindars (as in Bengal) or in a few cases by native chiefs whose titles dated from the pre-Muhammadan period, and of crown lands (Havēli lands) reserved for the support of the governors of the province or members of the royal family and their immediate dependents. The zamindars were left in possession and the crown lands were parcelled out and leased to revenue farmers for a term of years. In 1769 provincial councils were formed after the model of Bengal to supervise the revenue management. They found the work of looking after the zamindaris too great for them and did not effect much. The next step was the appointment by the Court of Directors of a Special Commission or Committee of Circuit to make tours in the districts and institute inquiries into rights and interests. Their instructions were conceived in a liberal and enlightened spirit, but the local councils did not support the members and the renters did all in their power to thwart them. The commission therefore resulted in failure. In 1786 a Board of Revenue was established at Madras on the pattern of the Board already existing in Bengal, and about the same time individual collectors took the place of provincial councils in the circars.

1765. *1769.* *1786.*

Lord Cornwallis' system of permanent settlement.

195. In the same year that the Madras Government entered on the management of the Northern Circars, the Bengal Government assumed that of Bengal, Behar and Orissa; and experiments were conducted in the latter case in very much the same way as in the former. The Bengal Government, however, came earlier to a decision and when Lord Cornwallis arrived in India in 1786 the plan of the permanent settlement with the Bengal zamindars had already been arranged. A tentative settlement of the whole of Bengal for a period of ten years was announced in 1789, and in 1792 the experiment of a permanent settlement was declared to be confirmed. Pressure was brought to bear on Madras by the Bengal Government to adopt the same policy and the Court of Directors sent out orders to this effect in 1795. The Madras Board, however, replied that it was hardly prepared to recommend the perpetuation of the settlement and required time for the collection of further information. In 1799 positive orders were issued from England that Lord Cornwallis' permanent system was to be adopted throughout the Madras Presidency. Eventually the Madras Government reported to the Supreme Government that it was possessed of materials for a permanent zamindari settlement in certain parts of the country. A special commission was appointed, and between the years 1802 and 1804 the northern districts of Madras were permanently assessed. The lands already in the hands of zamindars were confirmed to them in perpetuity, the assessment (peshkash) being fixed at two-thirds of half the gross produce estimated

1789–1792. *1795.* *1799.* *1802–1804.*

on an average of the previous thirteen years. That is to say, half the produce was to be left to the cultivator, one-sixth was to be the zamindar's share, and the remaining two-sixths was the Government revenue. The amount of the latter once fixed was unalterable, no increase ever being leviable on account of extension of cultivation to waste lands. The crown lands were parcelled out into estates of a convenient size, assessed in a similar manner and sold as permanently-settled revenue farms to the highest auction bidder. Regulation XXV of 1802 detailed the terms on which they held their property. In course of time, however, many of these artificially created estates came back to the hands of Government owing to failure of the purchasers, and the lands then became subject to the ordinary (temporary) settlement, there being none to repurchase them. Though great numbers of zamindaris were sold for arrears, purchasers were generally found for them and they did not cease to be permanently-settled estates. Only in a comparatively few cases was there no purchaser, and then the lands were retained by Government as 'Khās Mahāls,' *i.e.*, estates retained in the hands of Government.

The Ceded Districts, the Carnatic and southern districts. *1792–1801.*

196. While these measures for the settlement of the more ancient territories of the Company were in progress, new territories were added to the Presidency, and the question of land assessment came up again for discussion in connection with the part of the country ceded to the English in the south. In 1792 the first war with Tipu Sultān of Mysore placed a considerable tract of country comprising the present district of Salem, part of Madura, and Malabar in the hands of the British. The second war with Tipu added Canara and Coimbatore. According to a treaty with the Nizam of Haidarabad in 1800, what are now called the Ceded Districts, viz., Bellary, Anantapur, Kurnool and Cuddapah, were ceded in perpetuity. In 1801 all the remaining possessions of the Nawab of Arcot in the Carnatic comprising the present districts of Nellore, North and South Arcot, Chittoor (excepting a portion), Madura, Rāmnād, Trichinopoly and Tinnevelly were made over to the British, thus carrying their possessions down to Cape Comorin. The state of Tanjore had been brought under British management in 1799 owing to the incapacity of its Hindu ruler. In the territory thus newly acquired, the same distinction was found as in the Northern Circars. That is to say, there were lands held by numerous chieftains (pālegārs) and lands held direct from Government.

The village-lease system. *1798.*

197. When these new districts had to be settled, officers of the Civil Service were not available, and the failure of management in the previously acquired tracts furnished additional reasons for the appointment of military officers, who knew the language and the country. Accordingly, Captain Read was sent to the Bārāmahāl, as Salem district was then called; he had Munro and others as his assistants. Coimbatore was taken in hand in 1799 by two officers, who had been under Read. The settlement of the Ceded Districts was undertaken by Munro in 1801. The Carnatic districts were settled on similar general principles immediately afterwards. Practically all these early settlements were tentative arrangements which depended largely on what the settlement officers found practicable. The general idea was to make a permanent settlement, but with whom was not determined. Captain Read's instructions were to grant leases to the headmen or the chief inhabitants of each village, that is to say one or more individuals were to be selected to hold the settlement and to pay, according to the terms of the lease, the amount that might be agreed upon as the revenue of the village. The leases were to be annual at first, but after sufficient information had been gathered, it was hoped that leases might be made for periods of five years. To begin with, Read offered terms to the headmen of single villages or groups of villages based on the recorded assessment of Haidar's reign corrected by comparison with accounts of actual cultivation. At the same time the interest of the cultivator was guarded and a detailed field survey was made. This led to the idea of assessing each field according to its quality and leaving the cultivator free to keep the field or relinquish it and take another. The survey was finished and the assessment on each field determined by the year 1798, and a proclamation was made setting forth the terms of the settlement, one of the conditions being that all the resident cultivators of a village should be jointly responsible for the revenue due on all the lands cultivated during the year.

Extension of permanent settlement. *1803–1805.*

198. This was not the kind of 'village-lease' which the Board had intended, and an explanation was called for. Meanwhile Read was called away to the second Mysore war and the consideration of what had been done was suspended by the

attempt to carry out the orders to introduce the permanent settlement. In accordance with the orders received in 1799 the Bārāmahāl was divided in the years 1803–1805 into numerous revenue farms which were sold by auction to the highest bidder. A great many of the farmers, however, failed in the second year after having pillaged the villages in their farms, and many estates fell into the possession of Government again. It became evident that the permanent settlement could not be carried out, and a return was made to Read's system, which was in fact a ryotwari settlement, *i.e.*, a settlement with each individual cultivator (ryot). The estates held by a few of the pālegārs in the Ceded Districts and in the Carnatic districts were permanently settled, but in the majority of instances the pālegārs attempted to resist the British authorities in the hope of continuing the same lawless course of exactions and plunder that they had adopted before the annexation and were therefore destroyed or dispossessed.

Reversion to village-lease system.

199. The attempt to create artificial estates, which were to be assigned in perpetuity subject to the payment of a fixed sum as peshkash or land-revenue, was a general failure, and at last it became apparent that the conditions of by far the greater part of the Presidency were unsuited to the introduction of the zamindarī system. In 1808 the Government of Fort St. George determined to recur to the *1808.* system of 'village leases' in the districts in which the permanent settlement had not been established, and in which settlements were made with the individual cultivators and the revenue collected from them by Government servants on the principles worked out by Read, Munro and the men who had served under them. The chief objects of the change of system appear to have been economy and a desire to introduce a plan of settlement approximating to the zamindari settlement in perpetuity. Under the village-lease system the settlement was to be made with the village headman or with the general body of villagers, or failing them with a renter. The revenue due to Government was to be assessed on the average of the amount collected from the village in previous years. The leases were to be for triennial periods; they were afterwards made decennial. The great difference between this system and the ryotwari system was that under the latter the cultivators were at liberty to extend or curtail their holdings and were only responsible for the payment of the revenue assessed on the fields actually held by them; under the former the lessee had no power of relinquishing any portion of his holding during the currency of the lease. It was not a successful experiment on the whole. The most general cause of failure was over-assessment. Lessees could not be found for many villages, and in these the ryotwari system was continued.

Introduction of the ryotwāri system.
1817.

200. One great advantage of the ryotwari system was the opportunity it afforded of acquiring information respecting revenue matters, of ascertaining the dues of Government and the rights of the cultivators. The universal introduction of the zamindari system had been held in abeyance for fear of sacrificing the interests of Government in the then imperfect state of knowledge and the ryotwari system was discontinued in favour of the village-lease system before all the benefits it was capable of yielding had been realized. However in 1817 the Court of Directors issued instructions for the abolition of the village-leases and the re-introduction of the ryotwari system wherever practicable. At this period the zamindari system was in force in the districts of Ganjām, Vizagapatam, Gōdāvari, Kistna, Guntūr, Salem and Chingleput, in the permanently-settled estates of the pālegārs in parts of the Ceded Districts, Nellore, North and South Arcot, Chittoor (excepting a portion), Madura, Rāmnād and Tinnevelly. In the unsettled portions of the latter districts and in Tanjore and Trichinopoly the village-lease system prevailed. In Coimbatore, Malabar and Canara the ryotwari system had been established. In Malabar and Canara a class of landlords was found whose claims were so far recognized that they were allowed to retain a share in the produce. No survey was undertaken, the prevailing custom of measuring the land for purposes of assessment by the amount of seed it takes to sow it being recognized and adopted. In 1820 Munro became Governor of the Madras Presidency and took his seat in time to preside over the final establishment of the ryotwari system. The early ryotwari settlements had many defects. Restrictions were placed upon the relinquishment of land, and heavy assessments were imposed on garden lands, *i.e.*, lands cultivated with special crops. The survey and settlement were conducted so rapidly that there were very great inequalities. The assessments were largely dependent not so much on the estimates of produce as on former assessments which had been run up to a high pitch

under the Mysore Government or the Nawab as the case might be. Such rates were liable to become unbearable when the selling price of grain became very low as it did for a number of years. Hence various devices were resorted to in order to mitigate the burden. All this has now given way to careful survey and deliberately framed and carefully equalized assessments. Garden lands have been classified and assessed as dry lands in all districts except Malabar and South Canara, in which districts, owing to peculiar conditions of garden cultivation, it has been found necessary to assess gardens at special rates.

Ryotwari Settlement.

201. Before proceeding to describe the machinery by which the existing settlements have been effected, the modern meaning attached to the term ryotwari settlement may be explained. It means the division of all arable land whether cultivated or not into 'fields' and the assessment of each 'field' at a fixed rate for a term of years. The 'field' is an arbitrary area. There is no minimum size, but it is usual to fix a maximum. Where a survey-field comprises the holdings of two or more occupants it is sub-divided where such holdings are separately identifiable. Survey-fields may also be sub-divided to distinguish portions transferred or relinquished. All such sub-divisions are durably demarcated. The occupant pays the revenue so assessed on the area he actually occupies. This area may be constant or may be varied from year to year by the relinquishment of old fields and the taking up of new, which are available either as waste or in consequence of having been given up by some one else. The occupant deals directly with the Government and is responsible for no one's revenue but his own. He is given a document called a patta, which sets forth the extent and assessment of each survey-field or portion of a field in his occupation. This patta is liable to revision every year so as to bring it into accord with the actual state of affairs. The occupant thus enjoys all the advantages of proprietorship, subject only to the payment of the revenue due on the lands held during the year. The lands can be inherited, sold or burdened for debt in precisely the same manner as a proprietary right, provided that the person in whose name the land is registered in the Government accounts pays the revenue due to the State. The total number of holdings under this system in the year 1910–1911 was 3,859,407 with an average of 6·45 acres in each holding.

Institution of the Settlement Department.

1855.

202. In 1855, that is, a quarter of a century after the final adoption of ryotwari as the standard revenue system of Madras, less than a fifth of the area of the Presidency was cultivated, while more than half of the area recorded as arable was waste. Though the population had largely increased and there had been uninterrupted peace, there had in all these years been neither any material increase of revenue nor any extension of cultivation. The incidence of assessment was everywhere very unequal, while a succession of years of low prices had had the practical effect of raising rates which were already too high. It was calculated that on the average Government at that time took as their share 50 per cent. of the gross produce of irrigated land and 35 per cent. of that of unirrigated land, while, to give the ryot any real proprietary interest in the land and to induce an extension of cultivation, from 25 to 30 per cent. of the gross produce was, it was thought, the utmost the Government should claim. The Presidency of Madras was also the only province of India in which no regular survey had been instituted. The early surveys even the best of them, were defective. There were no maps—district, taluk or village—and no permanent boundaries, and the records of the surveys, such as they were, had been but imperfectly preserved. These early surveys, moreover, extended to only a few districts of the Presidency, and there were districts in which the only records of the area liable to assessment were the unchecked entries in the accounts prepared by the village officers. On these and similar considerations, the Government determined in 1855 that a general revision of assessments should be made throughout the Presidency, founded on an accurate survey and a more or less exact classification of soils which seemed the only right basis of a land-revenue settlement. The Government of India and the Home Government concurred in the necessity of the measure, and the Revenue Settlement Department was constituted in 1858 with Mr. Newill as the first Director. The Settlement department at first undertook to demarcate the village and field boundaries. This was a tedious process involving much arbitration and the investigation of many disputes. The marks erected in many cases were temporary and destructible, and had frequently to be renewed by others of a more permanent nature. This

1855.

1858.

unsatisfactory work continued to occupy much time and attention until the districts of Gōdāvari, Kistna, Guntūr, Kurnool, Nellore, Salem, Trichinopoly and Tinnevelly were demarcated and surveyed, when the demarcation of boundaries was made over to the Survey Department. This was in 1864. By the end of 1864 proposals *1864.* for the revision of the settlement of the whole of Trichinopoly, of that portion of Kurnool known as Kurnool proper, of the Masulipatam portion of Kistna district, of one taluk of South Arcot, and of the western delta of Gōdāvari district had been worked out and submitted for the consideration of Government. The results of these operations of the department were not, in the opinion of Government, satisfactory. Its organization as a separate department, distinct from the local revenue establishments, was held to be defective, and the experience and knowledge of the district officers were lost, their interest not being enlisted. The personal supervision which the Director could exercise over the operations of scattered parties could be only nominal. The time available for ascertaining by experiment the productive powers of the soil was necessarily very limited, and the conclusions arrived at by the department had not, in this respect, commanded confidence. Much time and money were wasted over minute details of little practical value, while the really important work of a settlement was left too much to ill-paid subordinates. Except, therefore, in certain districts, where the work had already so far advanced as to make its continuance by the special department desirable, Government resolved to place all settlement operations under the immediate supervision of district officers controlled by the Board of Revenue. The new system was introduced in two districts—Tinnevelly and Nellore—the Collector of the former being, from long experience as a settlement officer, especially qualified for the duty. But in Nellore the experiment resulted in such a failure that in 1868 Government transferred the settlement back to the special *1868.* department on the ground that the retention of the special department was the only method by which it was possible to ensure celerity and efficiency in settlement work, consistency and uniformity in the details of re-assessment and a fair measure of relative equality in the resulting taxation and to save the country from the neglect which must occur if the Collector and subordinate revenue officers were withdrawn from their ordinary duties. Settlement operations continued everywhere, except in Tinnevelly, under the control of the special department till the end of 1873, when, on the transfer of the then Director to the Board of Revenue, *1873.* that appointment was placed in abeyance for some months. On the appointment of a temporary incumbent in 1874, the question of abolishing the department as *1874.* a separate institution was again considered. The settlement of the whole of Trichinopoly, Kistna, Guntūr, Gōdāvari, Nellore and Salem districts, and of parts of South Arcot, Kurnool, Cuddapah and Tinnevelly had been by that time completed. The area settled by the department in these 15 years was 27,892 square miles, and the cost incurred, including demarcation, amounted to Rs. 42,84,775. The cost of settlement proper was Rs. 24,06,733 or Rs. 83 per square mile. There remained 26,146 square miles to be settled, and it was estimated that the time required to accomplish this would be 13 to 14 years. The decision given was in favour of the continuance of the department under a separate head. The department continued to be so administered till the latter part of 1879, when, in consequence *1879.* of the financial exigencies of the Empire, the appointment of Director was abolished, and the strength of the department reduced by about half. The department was, under these altered conditions, administered by a member of the Board of Revenue. This arrangement lasted till the end of 1882, when *1882.* the appointment of Director was revived and conjoined with that of the newly constituted Directorship of Agriculture. But at the reorganization of the Board of Revenue in April 1887, the department was again placed under the direct charge *1887.* of the Board, one of its members assuming the portfolio under the designation of the Commissioner of Revenue Settlement and Director of Department of Land Records and Agriculture. In 1903 the Survey Department was placed under the Commissioner of Revenue Settlement and his designation was changed into Commissioner of Revenue Settlement, Survey, Land Records and Agriculture.

Original Scheme of Survey and Settlement.

203. The scheme of survey and settlement as originally sketched out is shown under the following 14 heads: (1) a revenue survey showing all the principal variations in the surface of the soil as hills, jungles, roads, channels, tanks, topes, houses, cultivated and cultivable lands, and also exhibiting accurately the sizes of the fields in these last two classes of land; (2) the minimum size of

fields was to be one acre of wet and two acres of dry land; interstitial holdings were to be treated as sub-divisions of such fields; (3) permanent boundary marks were to be established, and field, village and taluk maps prepared; (4) assessment was to be ryotwar; (5) the terms of the annual settlement made with each ryot were to vary simply with the area or quality of the lands held by the ryot, and his use or non-use of water from a Government source; (6) soils were to be divided into a few classes based on real tangible differences of composition; (7) the settlement officer was to estimate, as nearly as possible, the productive power of the land, stated in quantities of some one of the ordinary grain crops—paddy for irrigated lands, and cumbu, cholam or some other grain for unirrigated; these estimates (grain outturns) were to form the basis of the ultimate assessment; they were to be carefully made on such a scale as would allow for indifferent crops and bad seasons; (8) the land was then to be valued with regard to nearness of village roads, markets, irrigation facilities, etc., and the field or village was to be classed accordingly; (9) the assessment was to be moderate; existing rates were generally based on 50 per cent. of the gross produce for wet and 33 per cent. for dry lands; Sir Thomas Munro's maximum was 30 per cent., and this was now adopted on the assumption that the average assessment would be about 25 per cent. of the gross produce; (10) the ryots' payment was to vary every 7 or 10 years with the commutation price of the standard crop to be calculated on the average of the prices prevailing during the previous 7 or 10 years; (11) it was believed that it would not be found necessary to divide the country for the purpose of official scales of prices, *i.e.*, one scale was to apply to the entire Presidency for the term adopted; but this principle was abandoned in practice, and the commutation prices for each district have been calculated independently; (12) the grain outturns were to be unalterable for a period of 50 years; (13) it was to be open to the ryot to compound for a fixed annual payment for a term of years; and (14) the Survey Department and the Settlement Department were to be separate, the former under a Surveyor-General, the latter under a Superintendent of Settlement. The total cost was estimated at Rs. 76½ lakhs, spread over a period of 15 or 20 years. But this estimate has been greatly exceeded. Up to 31st March 1912, the total expenditure on revenue survey has been Rs. 2,94,34,999, and on settlement Rs. 1,82,85,207; the result was expected to be an immediate loss of revenue consequent on the reduction of the Government share of the gross produce. But this was to be more than recouped by an extension of cultivation. This scheme was accepted in the main by the Court of Directors. Objections taken subsequently with regard to certain detailed points were decided at different times as enumerated below: (1) the restriction as to the size of fields has been removed; the maximum was once fixed at 2 acres for wet and 4 for dry land, but now, as a rule, each revenue-field (*i.e.*, each parcel of land on which previously a separate assessment was fixed) will form a survey-field; in exceptional cases two or more revenue-fields may be clubbed together subject to the following conditions: (*a*) every survey-field so formed must consist of entire revenue-fields; (*b*) no survey-field so united should exceed 6 acres of wet or 12 acres of dry land; (*c*) the revenue-fields forming a survey-field should be held on the same tenure; inam and ryotwari land should not be taken together; (*d*) no existing revenue-field need be divided, however large; (2) the assessment was to be made on the net produce, *i.e.*, after deducting the expenses of cultivation and a percentage for vicissitudes of season, unprofitable areas, etc.; in 1864, the Government share of the net produce was fixed by the Secretary of State at one-half; (3) the term of settlement was to be 30 years, *i.e.*, both grain outturns and commutation prices were to remain unalterable for that period; subsequently it was decided that at each settlement or re-settlement of a district, Government would fix at their discretion the period for which such settlement or re-settlement should be in force, and on the expiry of that period Government would revise the assessment in such manner as might then seem just and proper either with reference solely to a rise or fall in prices or with reference also to other considerations such as would require a re-classification of soils or a re-calculation of the grain outturns; (4) leases for a term of years at reduced rents were found to be unnecessary for the encouragement of large holdings; (5) another important question which came up for disposal at the time of the initial settlement of the districts of Gōdāvari, Kistna and Guntūr was the method to be adopted in assessing the additional amount to be paid, over and above the land assessment, for water supplied from Government irrigation sources such as the Gōdāvari and Kistna canals; in these districts it was decided to impose an

Subsequent modifications.

uniform charge of Rs. 4 per acre for irrigation supplied for a single crop, in addition to the land assessment, which was determined as if the land was unirrigated; it was desired to adopt a similar plan in all other districts where it was found practicable; as a matter of fact, however, the only other district in which the system has been introduced is Kurnool, in some parts of which irrigation is supplied from a canal which was originally worked by the Madras Irrigation Canal Company under a guarantee from Government, and the principle was maintained when the Company's works were taken over by Government; the land-assessments were fixed without reference to the facilities for irrigation; in districts subsequently settled, the assessment on irrigated lands was determined by a consideration of the value of the paddy (rice) crop grown on the best irrigated land, gradations of rates being formed to meet the conditions of inferior qualities of soil or defects in the sufficiency or regularity of the water-supply; this system of consolidated wet assessment was extended to the irrigated lands under the Gōdāvari, Kistna and Kurnool-Cuddapah canals at the re-settlements of those districts; (6) formerly, it was the practice to charge the rates settled for irrigated lands, on lands irrigated by wells, where such wells were situated within a distance of ten yards of a Government source of irrigation, although Government had incurred no expense in sinking the wells; the justification for this course was that the wells derived their water-supply by percolation from the Government source; under recent orders, however, such lands are no longer assessed as irrigated, and the cultivator is allowed to enjoy the benefit of irrigation from his well free of any additional charge.

Constitution of the Department.

204. The department consists at present of five settlement parties under the control of the Commissioner of Revenue Settlement. Each party is in the charge of a Special Settlement officer who is a member of the Indian or Provincial Civil Service temporarily deputed for settlement work. He is usually assisted by one or more Special Assistant Settlement officers who are in the same manner drawn from the ranks of the Indian or Provincial Civil Service. The sanctioned cadre of a party usually comprises an Uncovenanted Assistant with a permanent office establishment costing on an average Rs. 355 a month and a supervisor with a field establishment costing on an average Rs. 960 a month, besides menials. Such additional temporary establishment as the needs of the moment may require is entertained from time to time under the orders of the Board of Revenue.

Procedure of Settlement.

205. The detailed operations performed by the Settlement Department in effecting the settlement of a district are the following.

Preliminary investigation.

206. I. In the first instance it is necessary to obtain a general view of the characteristics of the district. Particulars of the climate, rainfall and physical features of such tracts or divisions as differ from each other distinctly have to be ascertained; information relative to its past history, its years of plenty or famine, its land tenures, mode of taxation, and the causes of gradual progress has to be obtained from the Collector's records; the relative values of such sources of irrigation as the various tracts possess have to be estimated; a general idea of the prevailing soils must be acquired; at the same time information is gathered as to how different tracts are affected by roads, canals, markets, towns, hill ranges or seaboard; the methods of cultivation pursued, the crops grown, the mode of disposal of surplus grain, the markets mostly frequented and the wages paid to labourers have to be inquired into. A district is, for administrative purposes, divided into taluks: each taluk has to be visited and the revenue officers and leading cultivators consulted.

Classification of soils.

207. II. Soils were divided by Mr. Newill into five great series: (1) the alluvial and exceptional, which includes the rich soils in the deltas of the great rivers, garden and other soils, permanently improved by long working; (2) the regar or regada, the so-called 'black-cotton' soil; (3) the red ferruginous soil originating from sandstone, laterite, etc.; (4) the calcareous soil, originating from underlying strata of chalk or lime (of rare occurrence); and (5) the arenaceous soil (more or less pure sand on the sea coast, etc.). These series were adopted because they answer the requirements of being few, simple and well-defined while they are universally acknowledged by the people themselves. Every soil of the series may contain varieties in physical constitution. Each one has some one distinctive mineral constituent which is capable of reduction to an impalpable powder. This contains the characteristic mineral nutritive element of the soil, and is for

convenience (though not, of course, with scientific accuracy) spoken of as 'clay.' Now, each series may exhibit this material or 'clay' either pure or mixed with sand (as loam) or mixed with an excess of sand (sandy soil); and the difference affects the value of the soil because it makes it heavier or lighter, more or less permeable, liable to cake, or able to retain moisture. Each series is thus divided into classes, the exceptional into two—'alluvial' and 'permanently improved'—the others into three each, known as, 'clayey,' 'loamy' and 'sandy.' The clayey soils of each series are those containing more than two-thirds of clay, the loamy soils those with one-third to two-thirds clay and the rest sand, and the sandy soils those with more than two-thirds sand. So far the classification of soils proceeds, under fixed rules, according to their mechanical composition. Allowance is made for the presence of valuable or deleterious ingredients which affect the fertility of the soil, by the sub-division of each class into 'sorts' according as the soil is 'good,' 'bad,' 'ordinary,' etc., of its kind. At first the number of sorts in a class was only two, but experience proved such a scale to be too inelastic and the number was increased first to three and then to five, viz., best, good, ordinary, inferior, worst. In determining the classification, the soil is turned up to the depth of about 9 inches. One yard is considered to be the proper depth for the surface soil; if it is less than this, the actual depth is noted as well as the nature of the sub-soil. Classification is made by classifiers under head classifiers and supervisors. The classification of each field is noted on the village map and in a register. It is usually found that soils run in considerable blocks round which a line can be drawn on the map. Inside the block small differences in a few scattered fields would be disregarded to avoid multiplying blocks.

Classification of fields.

208. A revenue system based on field assessment seems to demand naturally and necessarily the separate classification of each individual field, and this is the sanctioned method of the department; it is, at the same time, laid down that though the details of classification extend to each field, the wider comparative view of the operations should never be lost sight of, as it is most desirable that the land should be viewed in a comprehensive way by the classifier. The detailed method of classification excited opposition at a very early period of the history of the department. Objection was taken to leaving the classification to men on low pay and it was proposed that the system of detailed field classification should be replaced by a system of classification in blocks laid out by native officers, but valued by Europeans. It was pointed out in reply that the result would, in both cases, be practically the same, and the proposal was negatived as impracticable. The question was again revived in 1875, in connection with the settlement of certain villages of the Chingleput district. The method advocated there by the Director was that the officer conducting the settlement should lay out the land in blocks so similarly circumstanced in regard to soil, former assessment, cultivation, distance from village, tank, etc., that they might be safely assessed at the same average rate. Under this system, the classifier, instead of preceding the head of the party, was to follow him merely filling in details of registry for the lands inspected and laid out by the settling officer in consultation with the ryots. For this system, it was claimed that fraud was almost impossible, while the officer conducting the settlement had, from first to last, a perfect knowledge of every detail of the country with which he was dealing, and could afford to dispense with the voluminous returns invented as checks on low paid subordinates. As a method of work, the Government have disapproved of the plan, but encourage blocking as a sequel to field classification and as in fact an office arrangement made for the purpose of check and revision. In Malabar and South Canara however blocking even as a sequel to field classification was not adopted as owing to the peculiar physical conditions of those districts the system was found to be inapplicable to them.

Grain outturn.

209. III. The next stage is to ascertain what amount of crop each different class and sort of soil will produce. The same kind of crop is not always grown on the same soil nor on the same field from year to year. It is necessary, therefore, to choose one or more standard grains (always food-grains, as food-products are the ultimate standards of values) to represent the general or average produce. The crop most extensively grown on irrigated lands is paddy (rice); on unirrigated (or dry) lands several varieties of food-grains are grown and the crop cultivated on the largest area according to the cultivation accounts is usually selected as the standard, or more often two crops are taken, the areas under other crops being for settlement purposes presumed to be cultivated with one or other of these according

to the relative value of the crop. A fair average outturn of the standard grains is then ascertained per acre of each class and sort of soil, and this is called 'the grain outturn.' The criterion of such outturns is experience, and this is sought in experiments by officers of the Settlement and Agricultural departments, in the knowledge acquired during long years of service by Tahsildars and similar responsible officers of Government, in the records of produce entered in the old village accounts, and in the admissions of the ryots. The actual experiments consist in reaping, threshing and measuring the crop upon small areas in selected fields. The number of experiments in some districts has exceeded two or even three thousand. The results are taken as a general guide to the grain outturns and no more. The experimental reapings (or *kails* as they were called), however, are now to a great extent given up, and general inquiries and statistics already collected are relied on instead.

Commutation price.

210. The grain-outturns are next commuted into money. The commutation price is fixed on an average struck on the prices of a long series of years so as to ensure that the advantages of good and losses of bad years may be balanced, and to preclude all risk of the Government share of the produce being sold to the ryot at a price which he cannot always command; and a percentage allowance (formerly 10 and now generally 15 per cent.) is made for cartage of grain to markets and for merchant's profits. For all the earlier settlements, the average taken was based on the prices of the 20 years from 1845 to 1864. But since 1885 the period has, under the orders of Government, been altered into the twenty non-famine years immediately preceding each settlement. From the results obtained by applying the commutation rate a deduction of from one-sixteenth* to one-fourth is usually allowed on account of vicissitudes of season, and in view of the fact that the survey areas of fields include small extents of uncropped land, such as field-ridges, irrigation distributaries, etc. Against the average value of the produce thus determined has to be set off the 'cost of cultivation,' the estimation of which used to be one of the most difficult and the most conjectural of the various steps in connection with a settlement. The items of cost usually included in the estimate were (1) ploughing cattle, (2) agricultural implements, (3) seed, (4) manure, and (5) labour required for ploughing, sowing, reaping, etc. The method of calculation varied according to the description of crops grown, and the method of culture, as well as according to the mode in which these items were paid in each district. In some, payments are made in grain, in others in money, and in some in both grain and money. The payments made in grain were converted into money at the commutation price adopted for the settlement. The cost of bullocks and of the implements of husbandry was distributed over the number of years during which they were estimated to be serviceable, and the other items were calculated for each year. Calculations were first made for the area which could be cultivated with one plough and one pair of bullocks, and the required calculations for an acre were deduced from them. The usual practice was to work out the expenses for the best soil, and then to diminish this standard proportionately according to the quality of soil. This method is open to objection on the ground that the cost of cultivating poor soils is greater if a maximum yield is sought therefrom than for superior soils. But it is to be borne in mind that the cultivator is content with a much smaller relative outturn from inferior soils and omits many processes such as repeated ploughings, manuring, weeding, and hoeing, which are resorted to on more fertile lands. Now the expenses of cultivation are taken to be the same as has been already determined in neighbouring settled districts. These expenses being deducted from the gross assets, *i.e.*, the value of the total outturn, the result is the approximate net produce of the land under examination, and half of this or more often rather less than half is taken as the Government demand. The 'straw' is usually taken as a set off against the item 'feed of bullocks.'

Cost of cultivation.

Assessment.

211. The principle has always been that the assessment is to be moderate. The old rates were generally based on 50 per cent. of the gross produce for wet and 33 per cent. for dry land. When revision began the maximum was reduced to 30 per cent., the average assessment being about 25 per cent. But in the course of

* One-twentieth is allowed in the case of lands under first-class sources of irrigation in Nellore.

time a gross produce percentage was not considered sufficiently accurate. Net produce was to be ascertained by deducting the cost of cultivation, etc., as explained in the last paragraph and in 1864 the Government share or revenue was fixed at half the duly ascertained net produce. Recent calculations have shown that the ryotwari revenue actually collected at the present time is less than 10 per cent. of the gross produce.

Tarams.

212. For the sake of simplicity and to avoid multiplication of rates, the classes and sorts of soil which have been found by experience to yield alike or very nearly so are arranged in grades called 'tarams'; it follows that the values of half the net produce of the different classes and sorts of soil falling in the same grade are very nearly equal. Only one rate of assessment is therefore fixed for each grade, and, as far as possible, these rates are adjusted, so that the descent from the highest to the lowest may be by a uniform amount in each grade. As soils possess different productive powers when irrigated and dry, it is necessary to adopt two scales of tarams, one for wet lands and another for dry lands. A third scale of rates is necessary for the garden lands in Malabar and South Canara. As all villages have not the same advantages in respect of proximity to markets, facilities of communication, *e.g.*, roads, canals, railways, means of irrigation, or position with regard to the sea, or rivers, or hills, and the character of the subsoil, inequalities would arise if the same set of wet and dry rates were applied throughout the tract under settlement. Villages are, therefore, arranged in groups, generally two or three for a district according to circumstances, and the irrigation sources are arranged in classes; the rates of assessment are worked out as detailed above for the lands in the normal group of villages and under the normal class of irrigation, and are applied to those in the other groups and classes by being raised or lowered one grade as the case may be. Thus, rate of assessment on good loamy black-cotton soil under first-class irrigation would be the same as that on the best loamy black-cotton soil under second-class irrigation. If sufficient water is obtainable, two crops of rice are frequently grown on 'wet' lands. In such cases, a charge equal to half the original assessment is made for the use of the additional supply of water. On unirrigated lands, the fixed assessment remains unaltered, whatever the number of crops raised may be, unless water be taken to irrigate a crop from a Government source, in which case a charge is made for the water so taken. Deductions are allowed if water has to be raised on to the fields by mechanical contrivances. No extra assessment is levied on account of the existence of wells, whether in 'wet' or 'dry' lands.

213. The practical results of the development of this system are that there are at present 72 rates in the wet scale ranging from Rs. 15 to As. 12 per acre and 60 in the dry varying from Rs. 11 to As. 2 per acre. In Malabar there are 7 garden rates ranging from Rs. 7 to Re. 1 per acre. At one time (in 1879) it was thought possible to draw up standard tables of rates including all classes and sorts of soil which could be re-applied at once to each field in a district as soon as the classification of the soil was known. It was suggested that instead of laboriously working up, as theretofore, to a table of rates, settlement operations in a new district should commence with the determination of such a table of rates as on consideration of the general conditions of the district, and of the rates adopted in other and neighbouring settled districts similarly conditioned might be deemed suitable. In pursuance of this suggestion, a standard table of rates, in which were embodied the more salient features of every settlement that had been made, was drawn up. Subsequently in 1884, when submitting proposals for the settlement of the Madura district, Mr. Wilson, the Director of Settlement, tested this standard scale by working out rates for each class and sort of soil, taking the outturn and cultivation expenses from the sanctioned settlements of adjoining and similarly situated districts, and the commutation rates from the price returns of Madura district. The result showed that the process of verification adopted by the Director could not with safety be omitted. It was, therefore, resolved that for each district, the settlement of which is taken up in future, an independent scale should be worked out on the data supplied by the settlements of other similarly situated districts without reference to a standard scale.

Scheme of settlement.

214. The rates so determined and applied to the survey areas placed under each class and sort of soil give what are called the financial results of the new settlement

for a village, taluk or district. Upon these data a scheme of settlement is drawn up by the Deputy Commissioner, in which he enters into full particulars of the political and revenue history of the tract or district under report, gives details of the physical features of the country, goes into statistics and resources, and discusses the several processes worked out by him in arriving at the results indicated above. He then argues as to the fairness of the revision of assessment proposed by him, and explains the causes which influenced the enhancement or diminution in assessment in any locality or localities as the case may be. These proposals are reviewed and revised, if necessary, by the Board of Revenue and Government. When a scheme of settlement has received the sanction of Government, a notification giving a brief summary of the principles on which the new money rates were worked out is prepared and published in the District Gazette.

Increment remissions.

215. In introducing the new rates the ryots are granted "increment remissions" in cases where the new assessment is greater than the old beyond a certain percentage; if the increase in individual cases exceeds 25 per cent. of the old assessment, the old assessment *plus* 25 per cent. of that assessment will be levied in the first year and the remainder remitted; in subsequent years, the assessment levied in the immediately preceding year *plus* $12\frac{1}{2}$ per cent. of the old assessment will be levied and the remainder remitted. If the full amount of the new assessment cannot be reached by the twelfth year, the balance remaining after levying 25 per cent. in the first year will be levied in equal instalments in the succeeding eleven years. Increases of Rs. 3 and less will be levied in the first year whatever the percentage may be.

Final operations.

216. Certain subsidiary matters connected with the assessment then receive attention. For instance, the area to be registered as entitled to irrigation under each source is finally revised, extended or curtailed as the state of water-supply renders it necessary. The interstitial holdings included by the Survey department in a single survey field are measured and distinguished by separate entries in the accounts. Opportunity is also taken to divide common lands, to allot grazing grounds, and to transfer lands improperly assessed as 'wet' to 'dry' and *vice versâ*. After the completion of these preliminaries, tickets, otherwise called rough pattas, are distributed to the ryots. A notice is affixed to each naming the time and place for the hearing of all objections to new entries and rates. On the day named in the notice, those who have cause for complaints appear with their village officers before the settling officer, and their complaints, as redressed or rejected, are entered in the settlement diary. The accounts are then corrected with reference to this final settlement, and the completed registers of each village with all names entered in the vernacular and in English are printed.

The Settlement Register.

217. This register, called the *Settlement Register*, is the foundation on which the whole revenue administration rests. It forms a complete 'Domesday book' recording accurate information regarding every separate holding, large or small. The area of each field is given in acres and cents or hundredths of an acre, and the assessment thereon is noted against it. A single field on the survey map may actually be divided amongst twenty ryots. In such a case there will be twenty sub-letters, and each ryot will have a separate sub-line in the register giving full particulars of his *holding*, even though the extent of it be no more than one-hundredth part of an acre. From the register is prepared a ledger known as the *chitta* which gives each ryot's personal account with Government. Every field or fraction of a field held by the same ryot is picked out from the settlement register, and entered in this ledger under his name with particulars of the area, assessment and other details. The total of the areas shows the extent of his different holdings in the village, and the total of the assessments is the amount due thereon by him to Government. A copy of this, his personal account, is given to each ryot with a note as to the date on which each instalment falls due and is known as his *patta*. An English descriptive memoir giving full details touching each village and its settlement, and an account of all lands held tax-free or on favourable tenure is also printed. A sketch map of the village showing the tanks and channels, and all similarly assessed fields laid out into blocks is attached to it. The descriptive memoirs of all the villages in each taluk consecutively numbered are bound into one or more volumes with their respective sketches and thus supply complete information regarding every village.

Pattas.

218. The introduction of settlement is effected by the issue of pattas to those entitled to them, and this is one of the most important parts of the process of settlement. In the districts first settled, it was thought sufficient to issue pattas in the names of persons entered in the accounts as they then stood, but latterly, more has been done and many thousands of pattas have, after due inquiry, and where no civil disputes arise, been changed from the names of deceased ryots or vendors to those of the actual occupants of the lands exhibited in them. As an average district contains 157,000 Government ryots and 1,075,000 fields, these proceedings have involved considerable labour. It may be noted that a settlement imposes not only an acreage charge on the lands then in a ryot's holding but it fixes the charge on each acre of waste land which is likely to be cultivated or occupied at a subsequent time.

Jamabandi.

219. The duration of the settlements and re-settlements hitherto carried out is 30 years. During that period, neither the grain outturns nor the commutation rates are altered. But, as under the ryotwari system, each cultivator is free to hold or relinquish whatever fields of his holding he likes, or to take up other available fields, and, as, in the circumstances described in paragraph 21 deductions are sometimes made from his total assessment, there must be an annual settling up to show what lands each ryot has actually held, and what amount, on all accounts, he has actually to pay for the year; his patta may be revised or he may, if necessary, be given a fresh patta every year. This process, which is called the annual settlement or *jamabandi*, is conducted not by the special department but by the ordinary revenue staff. In this way the information recorded in the settlement registers is periodically corrected, so that when the existing settlement expires and revision becomes requisite, it will in general merely be necessary to determine what the revised rates of assessment shall be, and to substitute these for the existing rates entered in the village accounts. In furtherance of this object, a new appointment was created in 1891 of a Deputy Director of Land Records, whose primary duty it was to see that the various accounts prescribed, and the record of holdings and cultivation are properly maintained. Measures are now being taken to bring the survey maps up to date. In December 1894 the appointment of Deputy Director of Land Records was abolished and the Deputy Director of Agriculture took charge of the duties of that appointment in addition to his own. In 1903 the Land Records establishment referred to in paragraph 190 was organized and the Deputy Director of Agriculture was relieved of these duties.

Resettlement.

220. Initial settlements having been carried out in all districts throughout the Presidency, the operations to be carried out in the future will be almost entirely resettlements. A resettlement consists in a revision of the rates of assessment which were calculated not on holdings but on fields which may now be in the same or in different holdings. In revising these rates, changes in prices, in means of communication, in the accessibility of markets and in the quality of the irrigation sources since the original settlement are taken into consideration, together with any other indications of economic progress or retrogression. And, as a rule, the rates are raised or lowered all round in defined tracts by the same percentage. A re-settlement may also be made by remodelling the original settlement by a reclassification of soils and the application of a new set of money rates based on a fresh calculation of grain outturns, cultivation expenses, etc. The districts of Trichinopoly, Gōdāvari, Kistna, Guntūr, Nellore, Salem, Kurnool and Chingleput, and the major portions of Cuddapah, Tinnevelly, Ganjām and Coimbatore have been resettled up to the present. The deltaic portions of the first four districts, the Berhampur taluk of the Ganjām district and the wet lands in the districts of Kurnool and Cuddapah were reclassified and the new rates based on the results of the reclassification were introduced. In the remaining tracts, a percentage enhancement was made in the existing rates with reference to the rise in prices. The time for resettlement has already arrived in portions of North Arcot, the Nilgiris and Rāmnād and in the course of the next ten years the fixed period will expire in South Arcot, Madura, the Nilgiris, Vizagapatam and portions of Bellary, Anantapur, Malabar and Chittoor districts.

The Remission Rules.

221. From what has been said above, it will be seen that, in the various calculations made in fixing the final money rates on each field, allowances are made

for seasonal failure and various other agricultural risks. As a matter of policy, however, remissions either total or partial of these rates are granted, as a matter of grace, under executive instructions in cases of loss of crop. Such remissions have occasionally been allowed to cure mistakes in assessment, which the utmost care cannot always prevent ; but relief on this ground is rarely required since Government are always ready and willing to correct, after a settlement has been introduced, any error which, in particular instances, may have led to over-assessment. The circumstances which render the grant of remissions expedient are the frequency of droughts or of immoderate rain, the enormous number of petty holdings, the improvidence of a large proportion of the cultivating class, and the undesirability of keeping arrears hanging over their heads for a series of years. Owing to the multiplicity of holdings and the general numerical weakness of the revenue staff, enquiry into individual losses is often impracticable : and relief can usually be rendered only where the loss of crop can be readily located, estimated and verified : and it is essential that it should reach the ryot. These considerations have been kept in view in the rules actually issued from time to time. In the case of " wet" land which is of comparatively limited area and productive of comparatively valuable crops, total failure of the crop over the plots registered in the accounts and demarcated on the ground as separate fields, is a fact readily ascertained and verified ; and the rules empower the Collector to remit the assessment in such cases in all years. In the case of failure, total or partial, of crops on " dry " land and the case of partial failure in " wet " land, whether this takes the form of an indifferent yield over a whole field or of a total failure of crop in parts of a whole field, the loss in particular fields is not only difficult to ascertain but its determination by subordinate officials is not susceptible of any satisfactory check. To meet these cases, therefore, an allowance is made at settlement in reduction of the assessment which practically meets the losses of all but exceptionally unfavourable seasons. To provide for the calamities of exceptionally bad years the rules allow of a proportionate remission of assessment uniform over tracts where the crops have suffered in a marked degree. The remission rules as stated above are executive instructions, liable to be altered from time to time at the pleasure of the Government.

Settlement of Inam Claims.

222. The settlement as described above only applies to the land under ryotwari tenure. If, however, there is land in the village, consisting of a few fields, or even a division of the village, held revenue free, or at a reduced rate, such an area is shown in the village registers. But it may be that a whole village is *inam*. If so, it constitutes a separate estate, and does not come within the scope of the settlement. Government has no claim to the land, or to the revenue unless there is a fixed quit-rent, which is recorded as is the permanently-settled revenue or " peshkash " of the zamindari estate. There was accordingly a special Commission, under which the right and title of the holders of these favoured estates was investigated and settled as described in paragraph 139.

Land Revenue.

223. The demand of land-revenue for the fasli ending 30th June 1911 under the different kinds of settlement above described was as under :—

	RS.
Zamindari	49,90,013
Ryotwari including miscellaneous revenue	5,84,72,214
Whole inam villages	7,53,490
Minor inams	23,11,016
	6,65,26,733

Cost of Settlement Operations.

224. The following statement exhibits the expenditure incurred in each district by the Survey and Settlement departments from the commencement of the operations up to the end of the official year 1911–1912 and the financial results of the ryotwari settlement for the revenue year ending with 30th June 1911 in the districts in which the operations of these departments have been completed. There was a net increase of over 124 lakhs of rupees in the revenue, *i.e.*, a return of 29 per cent. on the outlay.—

Districts.	Years of settlement or resettlement.	Outlay.		Financial results.		
		Survey Department.	Settlement Department.	Demand prior to settlement or resettlement.	Demand in fasli 1320.	Increase or decrease.
Original settlement completed.		Rs.	Rs.	Rs.	Rs.	Rs.
Ganjām*	1883–84 and 1909–11.	9,03,498	3,96,412	6,66,409	10,75,052	+ 4,08,643
Vizagapatam	1889–90	7,02,729	1,56,432	3 82,161	4,92,044	+ 1,09,883
Gōdāvari	...	6,81,301	3,35,609	...	...	...
Gōdāvari (rented and hill villages).	...	56,003	4,043	...	...	...
Kistna] Guntūr]	...	10,27,709	6,06,515	...	...	...
Nellore	...	6,27,776	6,09,124	...	...	...
Cuddapah*	1879–82 and 1907–09 and 1910–11.	15,23,470	12,73,729	(a) 15,84,484	13,66,189	– 2,18,295
Kurnool	...	10,42,451	5,59,879	...	...	...
Chingleput		9,51,596	4,36,029	...	..	...
North Arcot	1881–86, 1889–90 and 1906–07.	8,73,684	9,36,028	(b) 19,46,556	25,78,113	+ 6,31,557
Chittoor	1881–85	...	...	...	7,68,132	+ 7,68,132
Trichinopoly	...	2,89,885	3,87,415	...	..	...
Madura	1885–89 and 1892–93.	13,98,083	5,40,771	(c) 16,69,449	22,58,739	+ 5,89,290
Rāmnād	1877–78 and 1888–89.	...	...	...	5,03,512	+ 5,03,512
Tinnevelly*	1876–78 and 1908–11.	9,53,328	7,06,607	(c) 25,15,165	25,42,508	+ 27,343
Coimbatore	1879–82 and 1909–11.	15,03,665	7,43,387	25,51,819	29,18,486	+ 3,66,667
The Nilgiris (including Wynaad).	1881–87 and 1889–90.	11,03,996	1,23,299	77,329	1,29,286	+ 51,957
Salem	...	8,79,615	6,19,768	...	...	...
Malabar (Wynaad) ...	1888–89	8,12,858	1,67,014	82,654	1,33,306	+ 50,652
South Arcot	1887–89 and 1890–93.	11,89,060	7,81,742	35,84,962	40,66,300	+ 4,81,338
Bellary	1890–94	12,04,667	4,97,032	13,30,282	16,50,490	+ 3,20,208
Tanjore	1893–94	14,50,175	9,09,870	41,52,855	58,39,404	+16,86,549
Anantapur	1882–83 and 1891–92 and 1896–98.	10,24,909	5,18,270	10,39,869	13,80,320	+ 3,40,451
Malabar (proper) ...	1900–05	15,90,997	14,73,743	(d) 17,60,497	32,86,347	+15,25,850
Malabar (Janmam Registration).	...	1,00,595	...	..	...	...
Anjengo	1904–05	...	...	...	1,693	+ 1,693
South Canara	1903–19	9,48,217	7,62,764	14,28,484	23,69,570	+ 9,41,086
Salem hill villages ...	...	89,030	...	...	...	...
North Arcot and Salem (Javadi hill villages).	...	...	397	...	...	...
	Total ...	2,29,28,697	1,35,45,819	2,47,72,975	3,33,59,491	85,86,516
Resettlement completed.						
Trichinopoly	1894–95, 1904–05 and 1910–1911.	1,60,148	1,78,151	16,21,577	27,48,959	+11,27,382
Gōdāvari	1899–00	2,43,909	5,33,356	(e) 35,02,221	21,76,083	–13,26,138
Kistna	1899–00	5,91,117	3,81,477	12,90,807	38,48,306	+25,57,499
Guntūr	1904–05 and 1906–07.	86,657	2,27,115	39,60,145	49,24,321	+ 9,64,176
Salem	1904–05 and 1906–07.	3,70,997	4,01,212	(f) 20,36,737	19,64,512	– 72,225
Nellore	1906–07	7,52,735	2,49,531	19,79,435	23,08,239	+ 3,28,804
Kurnool	1905–07 and 1909–10.	7,57,020	4,35,421	15,60,350	16,28,550	+ 68,200
Chingleput	1909–11	6,14,693	4,28,399	18,12,739	20,00,044	+ 1,87,305
	Total ...	35,77,276	28,34,662	1,77,64,011	2,15,99,014	+ 38,35,003
	Grand Total ...	2,65,05,973	1,63,80,481	4,25,36,986	5,49,58,505	1,24,21,519

* The major portion of these districts have been resettled.

(a) Includes the figures for taluks transferred to the Chittoor and Anantapur districts.
(b) Includes the figures for taluks transferred to the Chittoor district.
(c) Includes the figures for the Rāmnād district.
(d) Includes the figures for the Anjengo district.
(e) Includes the figures for taluks transferred to the Kistna district.
(f) Includes the figures for taluks transferred to the Trichinopoly and North Arcot districts.

Law.

225. With the exception of Regulation XXV of 1802 under which the permanently-settled estates were constituted, there are no legal enactments specially affecting Settlement Officers. They work under departmental rules. The jurisdiction of Civil Courts over questions affecting the rates or amount of assessment is saved by section 58 of Act II of 1864 (The Revenue Recovery Act).

CIVIL DIVISIONS OF THE BRITISH TERRITORY.

The Presidency.

226. The power to declare and appoint by proclamation the territorial limits of the Presidency is vested in the Governor-General of India in Council, but the Secretary of State has the power to disallow any such proclamation; if, however, an entire zilla or district is transferred from one Presidency to another, the previous sanction of the Crown is necessary to render the proclamation valid.

28 & 29 Vic., c. 17.

The Scheduled Districts.

227. The scheduled districts include the Agency tracts in Ganjām, Vizagapatam and Gōdāvari and the Laccadive Islands and Minicoy. Information regarding the area, population, etc., of the Agency tracts will be found in the appendix at pages 204 and 205.

General Administration.

228. The jurisdiction of every member of the Board of Revenue extends over the whole Presidency; there are no officers corresponding to Commissioners in other provinces who have control over several districts. The Presidency is divided into 26 districts for the purpose of general administration, each under the charge of a Collector who is also the District Magistrate of the district in which he is employed, except in the case of the Collector of Madras where the Presidency Magistrates exercise the functions corresponding to those of District Magistrates in the mufassal. The Agency tracts are administered by the Collectors of the districts to which they are attached in their capacity as Agents to the Governor. Each district is divided into "divisions" and "taluks." The tables given in the appendix furnish details relating to districts, divisions and taluks, and show what groups of districts are included in such terms as "the Northern Circars", "the Ceded districts," etc. A few remarks about the area and population of the districts will be found in paragraph 685 of Chapter VI (Details of Census). In some taluks a portion of the taluk is placed under the charge of a deputy tahsildar. Each taluk is divided into three or four "firkas." The absolute unit for administrative purposes is the "village"; a village has definite boundaries fixed by Government; it may contain one or more hamlets and it corresponds to some extent to a "parish" in England. A district surveyor is generally employed in each district under the orders of the Collector.

Protection. Police.

229. For the administration of the Police Department the Presidency excluding the City of Madras is divided into three ranges, each under a Deputy Inspector-General of Police as shown below:—

Northern Range.	Central Range.	Southern Range.
Ganjām.	Kurnool.	Tanjore.
Vizagapatam.	Bellary.	Trichinopoly.
Jeypore.	Anantapur.	Madura.
Gōdāvari.	Cuddapah.	Rāmnād.
Kistna.	Chittoor.	Tinnevelly.
Guntūr.	North Arcot.	Coimbatore.
Nellore.	Chingleput.	The Nilgiris.
	South Arcot.	* South Malabar.
	Salem.	* North Malabar.
		South Canara.

Each district is under the charge of a Superintendent who is responsible to the District Magistrate for the working of the Police in the district, and several of the District Superintendents have officers of the rank of Deputy Superintendent as Personal Assistants. There are also in most districts Assistant or Deputy Superintendents in independent local charges under the general control of the District Superintendent. The City of Madras is under a Deputy Inspector-General who is styled the Commissioner. He has more extended powers than a District Superintendent and is assisted by two Deputy Commissioners of the rank of District Superintendent and an Assistant Commissioner of the rank of Deputy Superintendent. Two officers of the rank of Superintendent have the charge of the Police on the Railways and are under the administrative control of the Deputy Inspector-General, Railways and Criminal Investigation Department, who deals with all matters concerning professional offenders and criminal tribes.

* These two form a single Revenue district.

Criminal justice.

28 & 29 Vic., c. 15
India Act X of 1897, s. 3 (41).

230. The limits of the jurisdiction of the High Court may be altered by an order of the Governor-General in Council, but the Crown may disallow any such order. Its appellate and revisional jurisdiction over the ordinary courts extends throughout the Presidency. The High Court exercises ordinary original criminal jurisdiction in the Presidency town. In every other district there is a Sessions Judge except in the Nilgiris, North Arcot and Anantapur; the Sessions Judge of Coimbatore exercises criminal jurisdiction in the Nilgiris; two taluks of Anantapur district are within the local jurisdiction of the Sessions Judge of Cuddapah and the other seven taluks are within that of the Sessions Judge of Bellary; in Malabar there are two Sessions Judges, one for North Malabar and the other for South Malabar; there is one Sessions Judge for North Arcot and Chittoor districts. The district Collector is also District Magistrate in all districts except Madras; the Presidency Magistrates exercise jurisdiction within the Presidency town, the limits of which can be extended by a law made by the Governor in Council. Divisional-officers are Sub-divisional Magistrates for their divisions and the criminal jurisdiction of Sub-Magistrates is generally coterminous with a taluk or a portion of a taluk.

55 Geo. 3, c. 84.

Prisons.

231. There are no officers intermediate between the Inspector-General of Prisons and the Superintendents of Jails.

Civil justice.

232. The appellate jurisdiction of the High Court as a civil court is coterminous with the Presidency, but in certain cases tried by the courts of the Agents in the scheduled districts, the appeals lie to the Governor in Council and not to the High Court. The latter exercises ordinary original civil jurisdiction within the limits of its ordinary original criminal jurisdiction. Elsewhere Sessions Judges are District Judges for the areas within their criminal jurisdiction, but the District Judge of Cuddapah, instead of the District Judge of Bellary, exercises civil jurisdiction in the Adōni taluk of Bellary district; in a few districts Subordinate Judges are appointed with jurisdiction over portions of the district. The local jurisdiction of the Madras City Civil Court and of the Madras Small Cause Court is the same as the ordinary original civil jurisdiction of the High Court. There are 128 District Munsifs; there is only one District Munsif in the Nilgiri district, but there are twelve in South Malabar; there are usually four or five under each District Judge.

Registration of assurances.

233. Except in the case of the ten districts mentioned below there is a District Registrar of Assurances for each district. There is only one District Registrar for the two districts of Madras and Chingleput, one for Anantapur and Bellary, one for Chittoor and North Arcot and one for Madura and Rāmnād. On the other hand, there are two District Registrars in Malabar, one for South Malabar and the other for North Malabar, and the jurisdiction of the former also extends to the district of Anjengo. The District Registrars are subordinate directly to the Inspector-General of Registration. There is generally a sub-registrar's office at the head-quarters of each tahsildar or deputy tahsildar.

Local Boards.

234. The area under a district board is ordinarily identical with the revenue charge held by the President in his capacity as Collector, but in Ganjām, Vizagapatam and Gōdāvari portions of the adjoining Agency tracts are also included in the local fund area and the Koraput agency in Vizagapatam itself constitutes the charge of a separate district board. The area under a taluk board is usually coterminous with a revenue divisional charge; but the area under the Berhampur Taluk Board in Ganjām district includes the two divisions of Berhampur and Chatrapur. There are no taluk boards in the Nilgiris and Koraput or the Cochin division of Malabar district. The areas under the control of taluk boards and union panchayats are notified by the Governor in Council. A union is generally five or six square miles in extent except in the Ceded Districts and Nellore; in those districts and in some instances in other districts the areas of unions are much greater; the area of the smallest union (Rēnigunta in Chittoor district) is 0·03 square mile, while the area of the Gudur union in Nellore district is 60 square miles. The boundaries of the City of Madras and those of any district municipality may be defined or altered by the Governor in Council.

Municipalities.

Military (Volunteering).

235. For purposes of inspection detachments of volunteers are under the General Commanding the Brigade in which their head-quarters may be situated. The Madras Presidency area is included in two Brigades, the Bangalore Brigade and the Southern Brigade. The Bellary and Anantapur districts are included in the Bangalore Brigade and the other districts in the Presidency in the Southern Brigade

of which the head-quarters are at Wellington. The Sāndūr State falls within the Bangalore Brigade area and the other Native States in political relations with this Government, within the Southern Brigade area.

236. The Presidency Port Officer is the marine adviser to the Governor in Council and exercises administrative control over the conservancy of all the ports in the Presidency, except Madras, subject to the Indian Ports Act, 1908. The local port officers stationed at other ports are officially under his control. The port of Madras is under the control of a board of trustees constituted under the Madras Port Trust Act II of 1905. Marine.

237. For the administration of the Forest Department, the Presidency is divided into four "circles." The Northern Circle includes the districts of Ganjām, Vizagapatam, Gōdāvari, Kistna and Kurnool; the Central Circle comprises Guntūr, Bellary, Anantapur, Cuddapah, Nellore, Chingleput and Chittoor; the Southern Circle contains the districts of North and South Arcot, Salem, Trichinopoly, Tanjore, Madura, Rāmnād and Tinnevelly. Coimbatore, the Nilgiris and the West Coast districts of Malabar and South Canara form the Western Circle. There is usually one District Forest Officer in each district, but there are four in Coimbatore, three in Kurnool and two in each of the districts of Gōdāvari, Cuddapah, North Arcot, Salem and Malabar where the forest area is extensive. The constitution of a third charge in Gōdāvari has recently been sanctioned. For Trichinopoly and Tanjore, as well as Rāmnād and Tinnevelly, one District Forest Officer is appointed. Other Deputy and Assistant Conservators are sometimes given local charges under the control of the District Forest Officer who is regarded as the Assistant to the District Collector for forest purposes. **Production and Distribution.** Forests.

238. For the purposes of the Public Works Department the Presidency is divided into seven circles, one of which is constituted on a temporary basis for a period of two years from September 1911. Each of the circles is under the charge of a Superintending Engineer. No. I circle includes the Ganjām, Vizagapatam and Gōdāvari districts. The districts of Kistna and Guntūr constitute No. II circle. No. III circle comprises the Ceded Districts and a portion of the Chittoor district. The Nilgiris, the West Coast, the Coimbatore and Salem districts and a portion of the Trichinopoly district are included in circle No. IV; Nellore, Madras and Chingleput districts form circle No. V. The districts of Trichinopoly, Madura, Rāmnād and Tinnevelly constitute No. VI circle and the districts of Tanjore, North Arcot, a portion of Chittoor and South Arcot are included in the temporary circle No. VII. Each circle is divided into divisions, a division being generally a revenue district, but there are three divisions in Gōdāvari, three in Kistna and two in Tanjore on account of the delta irrigation systems, while, on the other hand, the two West Coast districts constitute one division and the districts of Anantapur and the Nilgiris are included in the divisions of Bellary and Coimbatore, respectively. Portions of the Rāmnād district are in Madura and Tinnevelly divisions. Four tank restoration scheme divisions have also been formed in the III, IV, VI and VII circles for the investigation and execution of tank restoration scheme works. The Sanitary Engineer to Government has since 1911 been placed under the Public Works Department. Public works

239. The land revenue of each district is collected and administered directly by the Collector, his Assistants, Deputies and Tahsildars. For the whole Presidency there are three Deputy Commissioners of the Salt, Abkāri and Separate Revenue department, each in charge of a division; the northern division comprises the Northern Circars and Nellore district; the central division includes the Ceded Districts, North and South Arcot, Salem, a portion of Tanjore district and the Carnatic districts except Nellore; the remainder of the Presidency forms the southern division. The three divisions are divided into twelve sub-divisions which vary considerably in size. The sub-divisions are again divided into 75 circles, some including four or five taluks and others comprising smaller areas. **Revenue and Finance.** Salt, Abkāri and Separate Revenue Department.

240. The Collector of Madras is the Protector of Emigrants throughout the Presidency. With the exception of the small district of Anjengo there is a District Medical and Sanitary Officer for each district, who is officially under the control of the Surgeon-General and of the Sanitary Commissioner. In addition to the Sanitary Commissioner there is also a Deputy Sanitary Commissioner and Inspector of Vaccination for the Presidency. Deputy Inspectors of Vaccination who are provincial servants are employed in all districts. Sanitary Inspectors are employed by some local boards and almost all municipal councils. **Vital Statistics and Medical Services.** Emigration. Medical. Sanitation. Vaccination.

Instruction.

241. For the purposes of the inspection of boys' schools by officers of the Educational department, the Presidency is divided into eight circles. The first circle comprises the Ganjām, Vizagapatam and Gōdāvari districts and the second circle, the Kistna, Guntūr and Nellore districts. The Ceded Districts * form the third circle and the districts of Madras and Chingleput including the Civil and Military station of Bangalore constitute the fourth circle. The fifth circle includes the districts of Coimbatore, Salem, North Arcot, Chittoor and the Nilgiris and the sixth circle the South Arcot, Tanjore and Trichinopoly districts. The southern districts of Madura, Rāmnād and Tinnevelly form the seventh circle and the Western districts, namely, Malabar and South Canara, including Coorg, form the eighth circle. Each revenue district is constituted into a division in charge of an assistant inspector and each division into two or more ranges, each in charge of a sub-assistant inspector, with a number of supervisors under him. The area under a supervisor of primary schools is usually one or two taluks. The three circles into which the Presidency is divided for purposes of the inspection of girls' schools are called the northern, central and southern circles. The northern circle consists of the Northern Circars and the Ceded Districts; the central circle includes the Carnatic, † North and South Arcot, Chittoor, Salem and Tanjore; and the southern circle comprises the southern and west coast districts and Coimbatore, Trichinopoly and the Nilgiris.

* Bellary, Anantapur, Kurnool and Cuddapah. † Nellore, Madras and Chingleput.

APPENDIX I.

Districts.	Total area.*	Population in 1911.	Area of zamindari and whole inam villages.	Area of land in ryotwari villages cultivated in fasli 1320.	Area of land shown in column 5 which was irrigated.	(a) Revenue for the year 1910–11. Land revenue and cesses (agricultural year).	
						Ryotwari.	Zamindari and whole inam villages.
1	2	3	4	5	6	7	8
	SQ. MLS.		SQ. MLS.	SQ. MLS.	SQ. MLS.	LAKHS. RS.	LAKHS. RS.
Circars ... Ganjām	8,380	2,221,292	1,451	1,092	457	13·62	6·91
Vizagapatam ...	17,222	3,189,821	2,427	309	172	7·50	13·21
Gōdāvari	6,220	1,652,859	1,281	913	522	36·82	6·95
Kistna ...	5,907	1,997,535	2,877	1,450	889	63·22	7·04
Guntūr	5,735	1,697,551	439	3,025	487	61·11	·93
Deccan ... Kurnool	7,581	935,199	193	3,089	149	21·78	·13
Bellary	5,713	969,436	207	3,663	102	20·89	·16
Anantapur	6,718	963,223	254	2,905	315	16·44	·18
Cuddapah	5,894	893,998	364	1,544	331	16·96	·39
Carnatic ... Nellore	7,973	1,328,152	4,020	1,306	473	27·06	5·91
Chingleput	3,071	1,406,008	948	903	595	21·86	2·40
Madras	27	518,660	...	...	...	1·03	...
South Arcot ...	4,208	2,362,566	330	2,087	773	44·98	·41
Central ... Chittoor	5,675	1,238,742	2,743	674	225	9·29	4·84
North Arcot ...	4,920	1,960,960	775	1,488	612	28·23	1·41
Salem	6,300	1,766,680	1,345	1,790	256	21·44	3·39
Coimbatore	7,196	2,116,564	188	3,032	597	32·55	·35
Trichinopoly ...	4,935	2,107,029	1,207	1,941	444	29·27	2·80
South ... ... Tanjore	3,727	2,362,689	580	1,674	1,318	63·89	2·31
Madura	4,917	1,932,832	1,265	1,566	460	26·82	2·42
Rāmnād	4,834	1,658,453	4,124	424	82	5·76	9·16
Tinnevelly	4,354	1,790,619	1,395	1,175	336	25·26	8·58
West Coast ... Malabar	5,794	3,015,119	12	2,039	...	36·58	...
South Canara ...	4,021	1,195,227	...	776	...	23·82	...
Anjengo	1	5,572	...	1	...	·03	...
Hills ... ...The Nilgiris ...	1,009	118,618	...	105	...	1·54	...
Bangalore	...	...	...	...	...	...	...
Travancore	...	...	...	...	..	...	...
Salt, etc., Accounts	...	...	..	...	...	...	...
Total ...	142,332	41,405,404	28,425	38,971	9,595	657·75	74·94

Districts.	(c) Revenue for the year 1911–12. Assessed taxes (official year).	Stamps (official year).	Excise (official year).	(b) * Salt (official year).	Forests (official year).	Customs (official year).
	9	10	11	12	13	14
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.
Circars ... Ganjām	·74	3·52	7·57	16·74	·71	·05
Vizagapatam ...	·93	4·05	10·74	7·70	·50	·07
Gōdāvari	1·07	5·21	14·93	4·88	2·18	3·55
Kistna	1·44	7·89	17·81	2·81	1·16	·82
Guntūr	1·17	5·07	8·84	6·97	2·31	·03
Deccan ... Kurnool ...	·43	2·09	11·52	...	3·46	...
Bellary	·65	1·52	11·96	..	1·61	...
Anantapur	·44	1·49	9·15	...	1·87	...
Cuddapah	·43	1·83	4·73	...	2·25	...
Carnatic ... Nellore	·65	2·39	4·59	8·99	2·49	...
Chingleput	·39	2·75	15·23	20·77	·84	...
Madras	7·31	15·26	21·54			54·57
South Arcot ...	·99	5·99	21·14	4·22	1·90	1·68
Central ... Chittoor	·43	2·29	5·85	...	1·26	...
North Arcot ...	·75	3·36	17·66	...	1·00	...
Salem	·65	3·23	13·77	...	3·01	...
Coimbatore ...	1·21	6·30	16·95	...	3·06	...
Trichinopoly ...	1·36	6·65	14·31	7·52	1·78	...
South ... ... Tanjore	1·70	10·85	22·75			4·82
Madura	1·27	8·61	11·35	..	2·51	...
Rāmnād	3·16	5·47	7·91	2·82	·41	·17
Tinnevelly	1·60	6·48	8·57	16·81	·98	6·13
West Coast ... Malabar	1·39	11·44	10·72	...	2·00	5·11
South Canara ...	·53	3·07	7·26	...	1·32	1·02
Anjengo	·01	·05	·05	...	...	...
Hills ... ...The Nilgiris ...	·47	·42	4·33	...	·59	...
Bangalore	·11	·02	...	...	...	...
Travancore	·07	...		...	...	...
Salt, etc., Accounts	·48	...	...	...	...	...
Total ...	* 31·83	127·30	301·23	100·23	38·90	78·02

* The Atlas sheet scale areas have been adopted in respect of certain tracts in Ganjām, Vizagapatam, Gōdāvari, Madura, Rāmnād, Tinnevelly and Malabar which have not been cadastrally surveyed.

(a) As the districts according to Sir William Meyer's proposals were formed in fasli 1320, average revenue for three years has not been furnished.

(b) Represents duty at Re. 1 per maund on the sales at factories in each district during 1911–12.

(c) As the new districts were formed from 1st April 1911, only figures relating to the official year 1911–12 are available.

APPENDIX II.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of Revenue Inspector's charges.	Number of Ryotwari and inam villages.	Number of Unions.	Municipalities. Name.	Municipalities. Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Ganjām (Chatrapur). — District Judge's head-quarters, Berhampur.	1. Berhampur* (Berhampur).	Berhampur ...	773	386,082	7·52	7	453	7	Berhampur ...	81,456
		Ichhapuram ..	231	90,849						
		Sompeta (*a*) and (*b*).	271	116,350						
		Total ...	1,275	593,281	7·52	7	453	7	...	..
	2. Chicacole * (Chicacole).	Chicacole ...	329	266117	6·68	7	228	4	Chicacole ...	17,852
		Narasannapeta	112						Pārlākimedi ...	18,370
		Tekkali (*a*) ...	258	135,852						
		Pārlākimedi (*a*) and (*b*).	973	339,860						
		Total ...	1,672	741,829	6·68	7	228	4	...	...
	3. Gumsur (Russellkonda).	Gumsur ...	1,162	230,436	4·47	10	801	3	...	...
		Aska (*a*) (*d*) ...	407	131,917						
		Sunrada (*a*) and (*b*).	136	25,041						
		Total ...	1,705	387,394	4·47	10	801	3		...
	4. Balliguda (Russellkonda).	Balliguda (*b*) ...	1,651	111,898	0·03	1	56	...	...	...
		Bamagiri (*b*) ...	971	86,149						
		Udayagiri (*b*) ...	504	81,730						
		Total ...	3,126	279,777	0·03	1	56	...	...	...
	5. Chatrapur (Chatrapur).	Ganjām (*a*) (*d*).	308	103,549	1·47	1	...	..	...	...
		Purushottapur (*a*) (*d*).	294	115,462						
		Total ...	602	219,011	1·47	1	...	...		...
		Grand total ...	8,380	2,221,292	20·17	26	1,533	14	...	...
Vizagapatam (Vizagapatam).	1. Narasapatam * (Narasapatnam).	Golgonda ...	1,264	177,731	2·03	4	530	1	...	...
		Sarvasidhi ...	341	168,941	2·62	3	160	1	...	...
		Viravilli (*a*) and (*b*).	517	233,765	0·65	1	286	2	...	...
		Total ...	2,122	580,437	5·30	8	976	4	...	...
	2. Vizianagram* (Vizianagram).	Bimlipatam (*a*).	255	130,371	0·09	1	120	...	Bimlipatam ...	9,314
		Vizianagram (*a*)	319	186,896	5·99	1	198	...	Vizianagram.	37,550
		Chipurupalle (*a*).	535	173,217	0·54	1	284	2	...	...
		Gajapatinagaram (*a*).	302	142,209	0·15	1	254	1	...	...
		Palkonda (*d*) ...	502	226,140	3·30	6	344	2	...	...
		Palkonda Agency								
		Total ...	1,913	858,833	10·07	10	1,200	5		...
	3. Pārvatipuram* (Pārvatipūram).	Pārvatipuram (*a*) and (*b*).	799	167,978	0·88	1	520	2	...	...
		Bobbili (*a*) ...	268	142,667	1·52	1	178	1	...	...
		Salur (*a*) and (*b*)	380	104,395	0·61	...	212	1	...	...
		Gunupur (*b*) ...	(*c*)	122,235	...	...	1,150	1	...	...
		Rayaghada (*b*).		93,908	...	...	758	...	...	...
		Bissemkatak (*b*).		62,628		...	837	...	...	...
		Total ...	1,447	693,811	3·01	2	3,655	5	...	...

* Divisions in charge of officers of the Indian Civil Service.

(*a*) Denotes zamindari divisions. (*b*) Denotes Agency.

(*c*) Area is included in that shown against the Koraput division.

(*d*) Two new taluks were formed with effect from the 15th October 1912. The Deputy Tahsildars' divisions of Aska, Ganjām and Purushottapur were abolished and a new Deputy Tahsildar's division with head-quarters at Kudula formed with effect from the 15th October 1912.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Vizagapatam (Vizagapatam)—*cont.*	4. Koraput * (Koraput).	Koraput (*b*) ...	10,822	54,294	...		611	...	...	...
		Jeypore (*b*)		173,952	0·86	...	1,214	...	...	...
		Nowrangapur (*b*).		180,920	...	...	1,033	...	...	...
		Malkangiri (*b*).		40,563	...	...	566	...	...	...
		Padwa (*b*) ...		96,888	..	...	1,418	...	...	...
		Pottangi (*b*) ...		77,930	...	...	920	...	...	
		Total ...	10,822	624,547	0·86		5,762	...	...	...
	5. Vizagapatam) (Vizagapatam).	Srungavarapukota (*a*) and (*b*).	442	148,225	0·19	1	279	2	...	...
		Anakapalle (*a*).	301	169,751	1·22	1	151	1	Anakāpalle ...	20,625
		Vizagapatam (*a*)	175	114,217	0·13	...	78	...	Vizagapatam ...	43,413
		Total ...	918	432,193	1·54	2	508	3	...	...
		Garnd total ...	17,222	3,189,821	20·78	22	12,101	17	...	...
Godāvari (Cocanada). (District Judge's head-quarters, Rajahmundry).	1. Rajahmundry * (Rajahmundry).	Rajahmundry ...	376	189,260	3·06	3	72	1	Rajahmundry ...	48,417
		Amalāpuram ...	367	215,710	7·07	4	94	1	...	...
		Razole	291	217,919	7·36	4	82	1	...	...
	2. Bhadrachalam * (Bhadrachalam), Rajahmundry, temporarily for about 3 months in the year.	Total ...	1,034	622,889	17·49	11	248	3	...	...
		Bhadrachalam (*b*)	911	55 952	·21	3	163	...	...	...
		Nugur (*b*) ...	593	19,958	·15	2	51	...	..	...
		Total ...	1,504	75,910	36	5	214	...	...	...
	3. Polavaram (Polavaram).	Polavaram (*b*) ...	543	65,727	·68	2	49	...	...	...
		Chodavaram (*b*).	710	28,610	·08	1	347		...	...
		Yellavaram (*b*) ...	918	36,655	·23	1	106	...	...	...
		Total ...	2,171	130,992	·99	4	502	...	...	..
	4. Peddapuram (Peddapuram).	Peddapuram ...	604	188,346	3·78	4	161	4	...	...
		Ramachandrapuram.	291	238,774	12·42	5	96	4	...	...
		Total ...	895	427,120	16·20	9	257	8	...	...
	5. Cocanada (Cocanada).	Cocanada ...	297	228,388	5·45	3	55	2	Cocanada ...	54,110
		Pithāpuram (*a*) ...	193	96,824	2·93	...	...	1	...	...
		Tuni (*a*)	126	70,736	·43	...	2	1	...	...
		Total ...	616	395,948	8·81	3	37	4	...	...
		Grand total ...	6,220	1,652,859	43·85	32	1,258	15	...	...
Kistna (Masulipatam).	1. Narasapur* (Narasapur).	Narasapur ...	262	171,124	7·50	4	70	3	...	...
		Bhimavaram ...	347	166,533	8·25	5	96	1	...	...
		Tanuku	372	269,853	12·69	5	126	3	...	...
		Total ...	981	607,515	28·44	14	292	7	...	...
	2. Bezwada * (Bezwada).	Bezwada ...	422	147,323	3 64	3	74	3	Bezwada ...	32,867
		Nandigama ...	677	158,186	3·34	3	131	1	...	...
		Nuzvid (*a*) ..	676	162,166	4·55	3	44	2	...	...
		Tiruvur (*a*) ...	337	79,175	·39	...	10	1	...	...
		Total ...	2,112	546,850	11·92	9	259	7	...	...
	3. Gudivāda (Gudivāda).	Gudivāda ...	313	162,306	9·23	4	136	2	...	...
		Kaikalur... ...	394	64,500	4·87	3	98	...	...	...
		Total ...	707	226,806	14·10	7	234	2	...	...
	4. Ellore (Ellore).	Ellore	766	208.167	5·19	3	148	2	Ellore ...	37,819
		Yernagudem ...	601	158,680	2·88	3	62	1	...	...
		Total ...	1,367	366,847	8·07	6	210	3	...	...

* Divisions in charge of officers of the Indian Civil Service.
(*a*) Denotes zamindari divisions.
(*b*) Denotes Agency.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Kistna (Masulipatam)—*cont.*	5. Masulipatam (Masulipatam).	Bandar	281	115,509	3·09	3	60	1	Bandar ...	42,312
		Divi	459	134,008	4·73	3	26	2	...	...
		Total ...	740	249,517	7·82	6	86	3	...	...
		Grand total ...	5,907	1,997,535	70·35	42	1,081	22	...	...
Guntūr (Guntūr).	1. Narasaraopet* (Narasaraopet).	Narasaraopet ...	716	195,137	5·13	3	114	2	...	...
		Vinukonda ...	644	94,469	2·09	3	77	1	...	...
		Palnad	1,041	161,197	4·85	3	92	2	...	...
		Total ...	2,401	450,803	12·07	9	283	5	...	...
	2. Ongole * (Ongole).	Ongole (including a portion of the Venkatagiri Zamindari).	792	246,273	5·33	4	174	1	Ongole ...	13,236
		Bāpatla	688	241,999	11·94	5	121	4	...	...
		Total ...	1,480	488,272	17·27	9	295	5	...	...
	3. Tenali (Tenali).	Tenali	302	203,262	12·46	5	84	1	Tenali ...	18,195
		Repalle	338	139,812	7·72	4	71	2	...	...
		Total ...	640	343,074	20·13	9	155	3	...	...
	4. Guntūr (Guntūr).	Guntūr ...	500	230,928	6·36	3	116	1	Guntūr ..	40,529
		Sattenapalle ...	714	184,474	5·09	3	135	1	...	...
		Total ...	1,214	415,402	11·45	6	251	2	...	..
		Grand total ...	5,735	1,697,551	60·97	33	984	15	...	...
Kurnool (Kurnool).	1. Nandyal * (Nandyal).	Nandyal	679	91,299	2·84	3	73	1	Nandyal ...	16,230
		Nandikotkūr ...	1,308	100,519	3·43	4	92	2	...	...
		Total ...	1,987	191,818	6·27	7	165	3	...	...
	2. Dhone (Dhone) now at Kurnool as a temporary measure.	Pattikonda ...	747	111,501	2·39	3	73	2	...	...
		Dhone	817	95,724	1.51	3	77	3	...	...
		Total ...	1,564	207,225	3·90	6	150	5	...	. .
	3. Koilkuntla (Koilkuntla).	Koilkuntla ...	576	92,681	3·08	3	87	2	...	...
		Sirvel	613	78,532	2·73	4	86	1	...	..
		Total ...	1,189	171,213	5·81	7	173	3	...	...
	4. Markapur (Markapur).	Cumbum ...	1,061	125,598	1·92	3	104	3	...	...
		Markapur ...	1,140	99,030	1·19	4	95	1	..	...
		Total ...	2,201	224,628	3·11	7	199	4	...	
	5. Kurnool (Kurnool).	Kurnool	640	140,315	2·79	4	97	3	Kurnool ...	26,040
		Grand total ...	7,581	935,199	21·88	31	784	18	...	...
Bellary (Bellary).	1. Hospet * (Hospet) now at Bellary as a temporary measure.	Hospet ...	537	92,132	2·15	4	128	4	...	...
		Hadagalli ...	587	92,974	1·79	3	88	1	...	...
		Harpanahalli ...	611	98,072	1·57	3	84	1	...	...
		Total ...	1,735	283,178	5·51	10	300	6	...	...
	2. Rayadrug (Rayadrug).	Rayadrug ...	628	84,284	1·81	3	72	2	...	...
		Kudligi	863	109,986	1·51	4	119	2	...	...
		Total ...	1,491	194,220	3·32	7	191	4	...	...
	3. Ādōni (Ādōni).	Ādōni	742	177,207	2·81	3	175	3	Ādōni ...	31,645
		Ālūr	582	100,181	3·36	3	84	2	...	...
		Total ...	1,324	277,388	6·17	6	259	5	...	...
	4. Bellary (Bellary).	Bellary	705	134,203	2·31	3	114	3	Bellary ...	34,956
		Siruguppa ...	458	80,447	2·53	3	98	1	...	...
		Total ...	1,163	214,650	5·34	6	212	4	...	...
		Grand total ...	5,713	969,436	20·34	29	962	19	...	...

* Divisions in charge of officers of the Indian Civil Service.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Anantapur (Anantapur). District Judge's head-quarters (Bellary).	1. Penukonda* (Penukonda).	Penukonda ...	678	93,860	1·61	3	105	2	...	...
		Hindupur ...	428	97,314	1·90	3	87	1	...	...
		Madakasira ...	443	82,121	1·28	3	61	1	...	...
		Total ...	1,549	273,295	4·79	9	253	4	...	...
	2. Dharmavaram (Dharmavaram).	Dharmavaram ...	732	89,348	1·60	3	63	1	...	...
		Kadiri	1,158	147,402	2·09	4	146	1	...	...
		Total ...	1,890	237,250	3·69	7	209	2	...	...
	3. Gooty (Gooty).	Gooty	896	149,139	2·84	4	135	3	...	...
		Tadpatri	641	114,273	2·20	4	97	2	...	...
		Total ...	1,537	263,412	5·04	8	232	5	...	...
	4. Anantapur (Anantapur).	Anantapur ...	925	106,131	1·81	3	118	...	Anantapur ...	8,457
		Kalyandrug ...	817	83,135	1·33	3	74	1	...	...
		Total ...	1,742	189,266	3·14	6	192	1	...	...
		Grand total ...	6,718	963,223	16·66	30	886	12	...	...
Cuddapah (Cuddapah).	1. Sidhout † (Rajampet) now at Sidhout as a temporary measure.	Pullampet ...	979	145,230	2·56	4	143	3	...	...
		Badvel	756	95,896	1·59	3	137	2	...	...
		Sidhout	606	64,333	·89	3	79	1	...	...
		Total ...	2,341	305,459	5·04	10	359	6	...	...
	2. Jammalamadugu (Jammalamadugu).	Jammalamadugu	612	106,360	2·50	3	138	1	...	...
		Proddatur ...	430	96,359	2·74	4	86	1	...	...
		Kamalāpuram ...	303	64,353	1·43	2	64	1	...	...
		Total ..	1,345	267,072	6·67	9	288	3	...	...
	3. Rayachoti (Rayachoti).	Rayachoti ...	998	113,982	1·63	4	101	1	...	...
		Pulivendla ...	701	106,950	2·20	3	113	2	...	...
		Total ...	1,699	220,932	3·83	7	214	3	...	...
	4. Cuddapah (Cuddapah).	Cuddapah ...	509	100,535	2·11	4	110	2	Cuddapah ...	17,807
		Grand total ...	5,894	893,698	17·65	30	971	14	...	...
Nellore (Nellore).	1. Gudur † (Gudur) Nellore as a temporary measure.	Gudur	658	102,924	2·56	3	92	2	...	...
		Rapur	594	66,215	1·54	3	119	...	...	...
		Polur (a) ...	364	64,754	‡ ...	...	...	2	...	...
		Venkatagiri (a)...	427	65,408	...	...	...	1	...	...
		Total ...	2,043	299,301	4·10	6	211	5	...	...
	2. Kandukur (Kandukur).	Kandukur ...	787	153,055	3·82	3	124	1	...	
		Kanigiri ...	1,014	125,917	·68	3	56	1	...	...
		Podili (a) ...	564	69,122	‡ ...	...	...	...	...	...
		Dārsi (a)	616	92,502						
		Total ..	2,981	440,596	4·50	6	180	2	...	
	3. Kavali (Kavali).	Kavali	548	92,773	2·53	3	55	1	...	..
		Kovur	387	124,671	6·30	3	86	3	...	...
		Total ...	935	217,444	8·83	6	141	4	...	...
	4. Atmakur (Atmakur).	Atmakur ...	640	105,114	3·14	3	103	2	...	...
		Udayagiri ...	871	98,391	·71	3	53	2	...	...
		Total ...	1,511	203,505	3·85	6	156	4	...	...
	5. Nellore (Nellore).	Nellore	503	167,306	6·14	4	102	...	Nellore. ...	33,246
		Zamindari, peshkash, etc. Huzur demand.	...		4·86	...	...	...	...	...
		Grand total ...	7,973	1,328,152	32·28	28	790	15	...	...

* Divisions in charge of officers of the Indian Civil Service.
† In charge of a Deputy Collector as a temporary measure.
‡ Included under Huzur demand.
(a) Denotes zamindari divisions.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesss (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Chingleput (Saidapet). District Judge's head-quarters (Chingleput).	1. Chingleput* (Chingleput).	Madurāntakam	696	308,851	5·69	4	401	4	Conjeeveram	53,864
		Chingleput	436	165,796	2·82	3	277	2	Chingleput	11,626
		Conjeeveram	299	172,309	3·27	3	247	1		
		Total	1,431	646,956	11·78	10	925	7	...	...
	2. Saidapet (Saidapet).	Saidapet	502	331.597	5·03	5	357	6	...	...
	3. Tiruvallūr (Tiruvallūr).	Tiruvallūr	430	194,405	3·82	3	212	1	...	...
		Ponnēri	708	233,050	3·83	4	286	4	...	...
		Total	1,138	427,455	7·65	7	498	5	...	...
		Huzur demand	..	...	·16	...	...	.	...	...
		Grand total	3,071	1,406,008	24·62	22	1,780	18	...	...
Madras.	Madras	.....	27	518,660	·97	3	...	...	Madras	518,660
South Arcot (Cuddaloor).	1. Tindivanam* (Tindivanam).	Tindivanam	447	217,829	4·44	4	250	1	..	...
		Villupuram	467	338,603	6·31	5	286	2	...	...
		Gingee	410	199,470	3·58	4	245	...		...
		Total	1,324	755,402	14·33	13	781	3	...	...
	2. Chidambaram (Chidambaram).	Chidambaram	402	320,190	9·16	5	341	5	Chidambaram	21,327
		Vriddhachalam	576	265,984	6·04	5	296	2	...	...
		Total	978	586,174	15·20	10	637	7	...	...
	3. Tirukkōyilūr (Tirukkōyilūr).	Tirukkōyilūr	585	328,968	5·67	5	348	3	..	...
		Kallakuricbi	873	305,418	4·94	5	276	4	...	...
		Total	1,458	634,386	10·61	10	624	7	...	...
	4. Cuddalore (Cuddalore).	Cuddalore	448	386,604	5·27	5	239	3	Cuddalore	56,574
		Grand total	4,208	2,362,566	45·41	38	2,281	20	...	...
Chittoor (Chittoor).	1. Chandragiri* (Chandragiri).	Chandragiri	548	1,71433	1 25	3	99	2	...	...
		Karventnager (a).	943	365,519	2·28	...	8	3	...	...
		Kalahasti (a)	636	101,199	·76	...	223	1	...	...
		Total	2,127	584,151	4·29	3	330	6	...	...
	2. Madanapalle* (Madanapalle).	Voyalpad	831	126,575	2·10	4	127	1	...	...
		Madanaplle	837	137,496	2·44	4	110	2	...	...
		Punganūr (a)	648	107,051	·81	...	243	1	...	...
		Total	2,316	371,122	5·35	8	480	4	...	...
	3. Chittoor (Chittoor).	Chittoor	793	232,850	3·20	5	164	1	Tirupati	16,701
		Palamanēr	439	50,619	·89	3	95	1	...	...
		Total	1,232	283,469	4·09	8	259	2	...	...
		Huzur demand	...	...	·03	...	...	...	...	...
		Grand total	5,675	1,238,742	1,376	19	1,069	12	...	...
North Arcot (Vellore). District Judge's head-quarters (Chittoor).	1. Tiruppattūr* (Tiruppattūr).	Tiruppattūr	539	207,262	2·14	3	344	...	Tiruppattūr	10,470
		Gudiyāttam	446	206,835	3·10	4	185	2	Vāniyambādi	20,406
		Kangundi (a)	346	68,210	·31	...	319	...	Gudiyāttam	23,390
		Total	1,331	482,307	5·55	7	848	2	...	...

* Divisions in charge of officers of the Indian Civil Service. (a) Denotes zamindari divisions.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
North Arcot (Vellore). District Judge's head-quarters (Chittoor)—*cont.*	2. Tiruvannāmalai * (Tiruvannāmalai). Vellore as a temporary measure.	Tiruvannāmalai.	1,010	285,641	4·20	4	410	...	Tiruvannāmalai.	21,244
		Polur	585	169,557	2·95	4	171	1	...	...
		Total ...	1,595	455,198	7·15	8	581	1	...	...
	3. Ranipet (Ranipet).	Walaja	395	216,795	3·62	4	190	5	Walaja	9,962
		Arkonam ...	319	164,412	3·57	4	179			
		Total ...	714	381,207	7·19	8	369	5	...	...
	4. Cheyur (Tiruvattipuram).	Cheyur	328	148,355	3·89	5	221	2	...	...
		Wandiwash ...	340	162 620	3·39	4	207			
		Total ...	668	310,975	7·28	9	428	2	...	...
	5. Vellore (Vellore).	Vellore	432	222 329	2·40	3	151	3	Vellore	49,746
		Arni (*a*) ...	180	108,944	·21		192			
		Total ...	612	331,273	2·61	3	343	3	...	...
		Grand total ...	4,920	1,960,960	2,978	35	2,569	13	...	...
Salem (Salem).	1. Hosur * (Hosur).	Hosur	1,217	195,627	2·75	4	220	2	...	...
		Krishnagiri ...	656	180,795	2·52	3	104	2	...	...
		Total ...	1,873	376,422	5·27	7	324	4	...	...
	2. Sankaridrug (Sankaridrug) Salem as a temporary measure.	Trichengode ...	604	295,251	4·65	4	110	2	...	...
		Omalur	406	153,290	2·70	3	117	2	...	...
		Total ...	1,010	448,541	7·35	7	227	4	...	...
	3. Dharmapuri (Dharmapuri).	Dharmapuri ...	943	224,961	2·78	4	122	4	...	..
		Uttangarai ...	910	156,725	2·08	4	438	1	...	...
		Total ...	1,853	381,686	4·86	8	560	5	...	...
	4. Salem (Salem)	Salem	723	352,213	4·13	4	343	3	Salem	59,153
		Atur	841	207,818	3·11	4	180	6	...	...
		Total ...	1,564	560,031	7·24	8	528	9	...	...
		Grand total ...	6,300	1,766,680	24·72	30	1,639	22	...	...
Coimbatore (Coimbatore).	1. Pollachi* (Pollachi).	Pollachi ...	692	208,080	3·01	3	130	4	...	...
		Palladam ...	593	258,520	4·15	3	103	4	...	...
		Udamalpet ..	566	159,804	2·41	3	87	1	...	...
		Total ...	1,851	626,404	9·57	9	320	9	...	...
	2. Erode (Erode).	Erode	598	289,689	5·08	5	210	...	Erode	16,701
		Dharapuram ...	853	281,731	4·99	4	86	1	...	...
		Total ...	1,451	571,420	10·07	9	296	1	...	...
	3. Gopichettipalaiyam (Gopichetti palaiyam), Bhavani as a temporary measure	Gopichettipalaiyam.	1,124	208,989	4·71	4	185	3	...	...
		Bhavani ...	715	162,388	1·83	3	66	1	...	...
		Total ...	1,839	371,377	6·54	7	251	4	...	...
	4. Kollegal (Kollegal).	Kollegal ...	1,076	118,017	1·40	4	195	1	...	...
	5. Coimbatore (Coimbatore).	Coimbatore ...	519	261,474	3·59	3	73	5	Coimbatore ...	47,007
		Avanashi ...	460	167,872	2·42	3	71	1	...	...
		Total ...	979	429,346	6·01	6	144	6		...
		Grand total ...	7,196	2,116,564	33·59	35	1,206	21	...	...

* Divisions in charge of offices of the Indian Civil Service. (*a*) Denotes Zamindari divisions.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320.)	Number of Municipalities.				
						Revenue inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Trichinopoly (Trichinopoly).	1. Karur * (Karur), Trichinopoly as a temporary measure.	Karur	612	241,252	3·81	3	92	1	Karur ...	17,674
		Kullittalai ...	901	285,206	3·65	4	139	1	..	...
		Total ...	1,513	526,458	7·46	7	231	2	...	...
	2. Nāmakkal (Nāmakkal).	Nāmakkal ...	691	311,333	4·35	4	119	9	...	...
		Musiri	762	311,835	4·96	5	140	3	...	...
		Total ...	1,453	623,168	9·31	9	259	12	...	...
	3. Ariyalur (Ariyalur).	Perambalur ...	674	219,932	3·99	4	110	2	...	...
		Udayarpalaiyam.	753	318,444	3·95	6	135	4	...	...
		Total ...	1,427	538 376	7·94	10	245	6	...	...
	4. Trichinopoly. (Trichinopoly).	Trichinopoly ...	542	419,027	8·01	5	216	2	Trichinopoly ...	123,512
									Srirangam ...	24,799
		Grand total ...	4,935	2,107,029	32·72	31	951	22	...	..
Tanjore (Tanjore).	1. Kumbakōnam.* (Kumbakōnam).	Kumbakōnam ...	206	279,178	8·5	3	226	2	Kumbakōnam.	64,647
		Pāpanāsam ...	234	186,324	7·70	3	190	4	...	...
		Total ...	440	465,502	15·85	6	416	6	...	...
	2. Negapatam* (Negapatam).	Negapatam ...	240	233,210	5·68	3	219	1	Negapatam ...	60,168
		Nannilam ...	291	217,267	10·91	4	253	2	...	...
		Total ...	531	450,477	16·59	7	472	3	...	...
	3. Māyavaram (Māyavaram).	Māyavaram ...	283	261,686	8·62	3	192	2	Māyavaram ...	27,121
		Shiyali ...	171	128,895	3·91	3	108	1	...	...
		Total ...	454	390,581	15·53	6	300	3	...	...
	4. Mannārgudi (Mannārgudi).	Mannargudi ...	301	196,983	6·14	4	210	2	Mannārgudi. ...	21,398
		Tirutturaippūndi.	497	194,949	5·07	5	156	3	..	...
		Total ...	798	391,932	11·21	9	366	5	...	...
	5. Pattukōttai (Tanjore).	Pattukkōttai ...	709	261,029	1·99	3	508	2	...	...
		Arantangi ...	382	107,542	1·38	3	527	..	..	...
		Total ...	1,091	368,571	3·37	6	1,035	2	...	
	6. Tanjore (Tanjore).	Tanjore ...	413	295,626	6·74	4	293	2	Tanjore ..	60 341
		Grand total ...	3,727	2,362,689	66·29	58	2,821	21	...	...
Madura (Madura).	1. Dindigal * (Dindigul).	Dindigul ...	890	379,186	4·23	5	122	1	Dindigul ...	25,052
		Palni ...	600	220,149	2·97	3	68	2	Palni, ...	13,211
		Nilakottai ...	411	199,262	3·47	4	139	4	...	...
		Kodaikānal ...	413	21,961	·43	2	16	...	Kodaikanal ...	2,906
		Total ...	2,314	820,558	11·10	14	345	7	...	...
	2. Usilampatti (Usilampatti).	Tirumangalam ...	745	311,823	4·56	5	198	3	...	...
		Periyakulam ...	1,107	365,160	3·89	4	47	7	Periyakulam ..	18,715
		Total ...	1,852	676,983	8·45	9	245	10	...	...
	3. Mēlūr. (Madura).	Madura	† 267	263,780	4·77	6	244	1	Madura ...	134,130
		Mēlūr	484	171,511	4·93	5	104	2	...	..
		Total ...	752	435,291	9,70	11	448	3	...	
	4. Madura (Madura).	Madura Town †...	...	...	...	...	...	...	...	...
		Grand total ...	4,917	1,932,832	29·25	34	938	20	...	...

* Divisions in charge of officers of the Indian Civil Service.

† The revenue charge of the whole Madura taluk excepting Madura town is under the Divisional-officer, Mēlūr, the revenue charge of Madura town alone is under the Divisional-officer, Madura, but the statistics of area, etc., are shown against the Madura taluk.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of Revenue Inspector's charges.	Number of Ryotwari and inam villages.	Number of Unions.	Municipalities. Name.	Municipalities. Population (1911).
1	2	3	4	5	6	7	8	9	10	11
Rāmnād (Madura).	1. Sāttūr * (Sāttūr).	Sāttūr	594	248,305	3·27	4	262	3	...	...
		Srīvilliputtūr ...	449	201,947	3·20	5	99	3	Srīvilliputtūr ...	29,066
		Total ...	1,043	450,252	6·47	9	361	6	...	...
	2. Rāmnād (Rāmnād).	Aruppukōttai (*a*).	2,058	187,146	·38	1	546	2	...	...
		Rāmnād (*a*) ...		125,819	3·92	1	210	5	...	...
		Mudukulattūr (*a*).		159,213	·09	1	682	2	...	...
		Paramagudi (*a*)...		154,422	·22	1	498	2	...	...
		Total ...	2,058	626,600	4·61	4	1,936	11	..	...
	3. Devakōttai* (Devakōttai).	Sivaganga (*a*)	1.733	196,077	3·86	1	812	3	...	...
		Tiruppattūr (*a*)		228,047	·17	1	494	3	...	...
		Tiruvadani (*a*) ...	(*b*)	158,477	·21	1	991	2	...	...
		Total ...	1,733	581,601	4·24	3	2,297	8	...	...
		Huzur demand ..	...	...	·13	...	...	...	...	...
		Grand total ...	4,834	1,658,453	15·45	16	4,694	25	...	...
Tinnevelly (Tinnevelly Bridge, Kokkarakulam). District Judge's head-quarters (Palamcottah).	1. Sermadevi * (Sermadevi).	Ambāsamudram.	481	193,406	5·10	3	97	7	...	...
		Nānguneri ...	730	209,714	3·71	5	119	4	...	...
		Total ...	1,211	403,120	8·81	8	216	11	...	...
	2. Tuticorin * (Tuticorin).	Srīvaikuntam ...	361	201,899	4·33	3	89	3	Tuticorin ...	40,185
		Trichendur ...	323	213,556	2·74	3	84	5	...	...
		Total ...	684	415,455	7·07	6	173	8	...	...
	3. Koilpatti (Koilpatti).	Koilpatti... ...	1,040	336,706	3·19	4	135	3	...	...
		Sankaranayinārkōil.	717	228,795	2·78	3	91	5	...	...
		Total ...	1,757	565,501	5·97	7	226	8	...	...
	4. Tinnevelly (Tinnevelly).	Tinnevelly ..	326	211,517	3·98	4	134	1	Tinnevelly ...	44,805
		Tenkāsi ...	376	195 026	2·98	3	41	3	Palamcottah ...	44,909
		Total ...	702	406,543	6·96	7	175	4	...	...
		Grand total ..	4,354	1,790,619	28·81	28	790	31	...	..
Malabar (Calicut). District Judges' head-quarters, South Malabar (Calicut), North Malabar, Tellicherry.	1. Tellicherry * (Tellicherry).	Chirakkal † ...	689	349,179	3·87	4	272	...	Cannanore ...	28,957
		Kottayam ...	481	226,682	2·27	3	227	...	Tellicherry ...	29,258
		Kurumbranad ...	505	353,983	4·74	4	341	1	...	...
		Total ...	1,675	929,844	10·88	11	840	1	...	...
	2. Malappuram (Malappuram).	Ernad	966	392,607	4·22	4	221	...	...	...
		Walavanad ...	882	373,954	5·15	5	317	...	...	...
		Total ...	1,848	766,561	9·37	9	538	...	...	...
	3. Palghat * (Palghat).	Palghat ...	643	414,009	5·83	5	138	...	Palghat ...	44,319
		Ponnāni ...	426	529.383	6·30	5	460	1	...	...
		Total ...	1,069	943,392	12·13	10	598	1	...	...
	4. Wynaad (Manantoddy).	Wynaad ...	821	82,549	1·63	3	58	...	...	...
	5. Cochin (Cochin).	Cochin ...	2	21,741	·17	...	1	...	Cochin ...	20,023
	6. Calicut (Calicut).	Calicut	379	271,032	2·37	3	188	...	Calicut ...	78,417
		Grand total ...	5,794	3,015,119	36·55	36	2,223	2	...	...

* Divisions in charge of officers of the Indian Civil Service.
† Includes area and population of the Laccadive Islands.
(*a*) Denotes Zamindari divisions.
(*b*) Included in the area shown against Rāmnād division.

District and head-quarters.	Division and head-quarters.	Taluks and zamindari divisions.	Area in square miles.	Population (1911).	Current demand of land revenue and cesses (fasli 1320).	Number of			Municipalities.	
						Revenue Inspector's charges.	Ryotwari and inam villages.	Unions.	Name.	Population (1911).
1	2	3	4	5	6	7	8	9	10	11
South Canara (Mangalore).	1. Coondapoor * (Coondapoor).	Udipi	725	272,756	5·66	3	158	...	...	...
		Coondapoor ...	619	139,599	3·35	3	103	...	...	...
		Total ...	1,344	412,355	9·01	6	261	...	...	...
	2. Puttur (Puttur).	Kasaragod ...	762	247,467	4·04	3	114	...	...	...
		Uppinangadi ...	890	144,761	3·03	3	144	...	...	...
		Total ...	1,652	392,228	7·07	6	258	...	...	...
	3. Mangalore. (Mangalore).	Mangalore † ...	385	280,470	5·22	3	171	...	Mangalore ...	48,412
		Mudabidri ‡ ...	640	110,174	2·52	2	109	...	...	...
		Total ...	1,025	390,644	7·74	5	280	...	...	...
		Grand total ...	4,201	1,195,227	23·82	17	799	...	...	...
Anjengo. Collector's head-quarters (Trivandrum). District Judge's head-quarters (Calicut).	Anjengo (Trivandrum).	Anjengo ...	·59	3,780	·02	...	1	..	...	...
		Tangasseri ...	...	1,792	·01	...	1	...	...	...
		Total ...	·59	5,572	·03	...	2	...	...	...
The Nilgiris (Ootacamund).	1. Ootacamund (in charge of the Collector, Ootacamund).	Gudalur ...	280	23,332	·50	2	12	...	...	...
	2. Coonoor * (Coonoor).	Ootacamund ..	461	42,582	·45	2	19	...	Ootacamund ...	18,829
		Coonoor ...	268	52,704	·52	2	23	...	Coonoor ...	9,933
		Total ..	729	95,286	·97	4	42	...	...	...
		Grand total ...	1,009	118,618	5·47	6	54	...	...	..

Note.—The Atlas sheet scale areas have been adopted in respect of certain tracts in Ganjām, Vizagapatam, Gōdāvari, Madura, Rāmnād, Tinnevelly and Malabar which have not been cadastrally surveyed.

* Divisions in charge of officers of the Indian Civil Service.

† The figures shown against Mangalore taluk include those relating to the Amindivi Islands.

‡ Mudibidri taluk has been abolished and a new taluk (Karakal) has been formed with effect from the 1st July 1912.

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DETAILS OF THE LAST CENSUS—TRIBES AND LANGUAGES.

Introduction.

242. The following description of the castes and tribes found in the Presidency, and of the languages spoken by various sections of the population, represents but a very brief condensation of chapters IX and XI of the report on the census of 1911.

243. The first part of the thirteenth Imperial Table for that year records the caste, tribe, or race returned by each person enumerated; or at least professes to do so. A scientific racial and tribal classification is obviously not a matter to be taken lightly in hand; if castes be divided into those sub-castes, which some authorities consider to represent the only true castes, it is clear that the task would require as many volumes as it had pages allotted to it.

Classification of Castes and Tribes.

244. The classification, observed at the enumerations of 1871, 1881 and 1891, of castes and tribes in accordance with the professions supposedly characteristic of them was abandoned in 1901, and was not revived in 1911. In 1901 Hindu castes and Animists were divided into linguistic sections; Muhammadans distinguished as Saiyads, Pathāns, Moghuls, Sheiks, Labbais, Māppillas, etc.; Christians divided into Europeans, Anglo-Indians (Eurasians) and Indians.

245. This useful, if unscientific, system followed again in 1911, showed that 36 Tamil, 40 Telugu, 5 Malayālam, 12 Canarese and 11 Oriyā castes, with 9 castes of "other Madras languages," 6 Muhammadan "tribes," and one body of "Indian Christians," comprised all but an inappreciable minority of the people of the Presidency.

246. When such distinctions of the people are considered in relation to areas so small as districts, it will be found that locality exercises a powerful influence in the direction of homogeneity; and that within an area reasonably compact, the sub-divisions of the people are by no means bewildering in point of number. The Cuddapah district, for example, possesses 772,000 Hindu and Animistic inhabitants; and of these 746,000 are accounted for by 32 main castes. In Malabar well nigh one and a half million Hindus, out of a total of two millions, are included in but five castes.

247. Such figures suggest the reflection that much of the caste and sub-caste difference in the Madras Presidency may be but the equivalent of differences observable in Europe between groups of varying social degree, and between groups identical in social status and occupation, but dissevered by the accidents of distance and language.

Hindus.

248. In 1901 there was devised an arrangement of Hindu castes in the order of social precedence. Castes appeared in print thus classified and described; the result of the experiment was in many ways instructive. The progress of modern ideas was to be seen in the not unnatural irritation evinced by certain sections of the people on finding themselves described as "polluting," or "slightly polluting"; the survival of old tradition in the fact that in no case was the general idea of pollution boldly repudiated, but each group sought to prove that it at least was above the pollution line. No attempt was made at the census of 1911 to gauge the social position of any person or groups of persons.

249. The proportion of some of the main Hindu castes to the total Hindu population in 1911 is noted in the margin. It is interesting to note the strength of the great Tamil and Telugu agricultural castes (Vellalas and Kāpus), and of castes commonly described as "depressed" (Paraiyans, Mālas, Mādigas). In respect of progress during the decade Brāhmans as a whole increased by 9·3 per cent.; but in the progress of the parts of this whole there were some curious variations. Malayālam and Canarese Brāhmans remained practically stationary; Tamil Brāhmans appear to have thriven and show an increase of 15·4 per cent. followed by Oriyā Brāhmans with 12·3 per cent., Telugu Brāhmans (5·7 per cent.) and "others" (6·4 per cent.).

Division of Hindu population into castes (000 *omitted*).

Total Hindu population	37,230
Brāhmans	1,311
Kāpus	2,679
Vellalas	2,536
Pallis	2,820
Paraiyans	2,364
Mālas	1,511
Mādigas	868
Kammas	1,126

134049

250. Kāpus have increased by but 4 per cent.; a rate which compares unfavourably with the 15·6 per cent. of the Kammas. Vellālas increased by 6·6 per cent.; at the foot of the social scale the Tamil Paraiyans are stronger by 9·8 per cent. than they were in 1901; the Mālas and Mādigas of the Telugu country together have increased by 7·3 per cent.

Formation of Sub-Castes.

251. Some considerable effort was made during the course of the census to ascertain the causes which lead to the formation of castes within castes, and the actual, as distinct from theoretical, system of caste government now prevailing.

252. The main factor inducing the formation of sub-caste would seem to be difference of locality. The members of caste *A* living in the village of *X* are theoretically the same as their fellow caste men who reside at *Y* some hundreds of miles distant. But facilities for travel are in Southern India of comparatively recent introduction, and in practice the dwellers at *X* seldom quitted, or even now quit the neighbourhood of their birth. Their interests become entirely centred in the society of a small area, and the difference between them and the similarly self-centred community at *Y* finds characteristically Indian expression in a mutual refusal to intermarry or "interdine."

253. Again, greater or less adoption of Brāhmanical usage or custom exercises a potent disintegrating influence. The *A* group of caste *X* forswears meat, marries its daughters in infancy, disallows the remarriage of its widows, and straightway looks down on the *B* group of the same caste which declines to submit itself to these restrictions.

254. Enquiry into the government of caste proved interesting, inasmuch as it involved the oft raised question as to whether or not the influence of the general caste idea is now waning. The general impression of those qualified to judge appeared to be that, save among the lowest social *strata* of the population, the influence of caste as regards actions which affect only the individual, as distinct from the society of which he forms part, is well nigh dead. The formal caste tribunal, with its powers of enquiry, and effective mandate of condemnation, has passed, or is passing, into the limbo of things forgotten: formal excommunication, though not unknown, is largely represented nowadays by the tacit verdict of society on the conduct of one of its members, and such verdict is not given save in respect of actions likely to impair the solidarity of the community, or of conduct substantially, as opposed to formally, objectionable.

Muhammadans.

255. The tribal divisions of the Muhammadans of the Presidency observed in name on the occasion of the census are, one fears, anything but satisfactory, particularly in respect of the conventional distinction between Saiyads, Pathāns, Moghuls and Sheiks. Saiyads are supposed to trace their descent to the daughter of the Prophet; and in virtue of this lineage naturally enjoy a certain degree of respect and consideration among their fellow believers. But unfortunately there is reason to believe that in Southern India, many calling themselves Saiyads have no real claim to such title. But few of the Pathāns of the Presidency could give an account of the conversion to Islam of Khais the Sirdar of Ghor; memories of their central Asiatic ancestors are faint in the minds of the Madras Moghuls. Sheiks include in their fellowship most Hindu or Christian converts; the title is assumed somewhat indiscriminately by Dūdēkulas and Labbais.

256. Māppillas, the great Muhammadan brotherhood of the West Coast, remain distinct and recognisable. Marakkāyars and Jōnagans, said to be descendants of Arab colonists on the East Coast, are small communities, found chiefly in Tinnevelly and Tanjore, of whom the first appeared to have decreased by nearly 50 per cent. in the decade (a phenomenon due, one suspects, to vagaries in enumeration), while the second have remained practically stationary in point of numbers. The term Labbai, which, some consider, should be applied solely to a certain section of Arabic colonists, is now a name loosely used to describe all Tamil-speaking Muhammadans.

Animists.

257. Animistic tribes, with some few well-known exceptions, are apt to wax and wane at the will and pleasure of the enumerator. A tribe numbering 60,000 and more appeared suddenly in the Nellore district at the census of 1911; such appearance being due to the sudden conversion (by their enumerators) to Animism

of the Yānādi people from the Hinduism of 1901. Khonds, who between 1891 and 1901, decreased in numbers by 3·2 per cent., showed in the ensuing decade an increase of 12·1 per cent.: the change is probably due to their interminglement at one enumeration or the other with Pānos, whose rate of increase between 1891 and 1901 (32·8 per cent.), appears to have diminished by half in the following ten years. The Tōdas of the Nilgiri Hills, after an apparent steady increase from 675 in 1881 to 805 in 1901, at their special enumeration in 1911 were found to be but 675 in number. The causes for this violent fluctuation have been suggested in the appropriate chapter of the census report: inasmuch as the Tōdas are enumerated specially re-enumeration at the general census may have accounted for much of their apparent increase in former days. Khonds. Tōdas.

258. Europeans in British territory numbered 14,850 as compared with 13,932 in 1901. In the three small feudatory States, whose statistics appear together with those of Madras, an additional 21 were found, of whom 15 were British subjects. The increase of 918 in the number of Europeans in British territory is accounted for almost entirely under the head of Europeans other than British subjects, whose numbers have during the decade risen from 1,391 to 2,124. Europeans.

259. The Anglo-Indian race appeared to increase and multiply at the rate of 21 per cent. between 1881 and 1891. This abnormal progress was probably due to the return of themselves as Anglo-Indians by Indian Christians who had taken to European methods of life. Since 1891, as the marginal figures show, the Anglo-Indians have declined in numbers slowly but steadily. In the decrease there may be a certain artificiality, the Anglo-Indian in prosperous circumstances being apt to prefer the description of European, but in all probability the present economic circumstances of the rank and file of the community are not such as to favour increase. Anglo-Indians.

	Anglo-Indians.	
	Males.	Females.
1891	13,147	13,523
1901	12,737	13 472
1911	12,651	13,372

260. The census statistics of 1911 showed 69 languages (28 Madras vernaculars, 18 vernaculars of other Indian Provinces, 9 vernaculars of Asiatic countries beyond India, and 14 European languages) as in daily use throughout the Presidency. But the real demands on the linguistic ability of a dweller in the Presidency are much less than would at first sight appear from these figures. Languages.

261. Tamil and Telugu together are the mother tongues of 784 of every 1,000 persons; Malayālam (74 per 1,000), and Oriya (38 per 1,000), are only to be encountered in certain restricted areas; Canarese (37 per 1,000) is fairly widespread in its distribution, but in many places where it is found (*e.g.*, Coimbatore, Salem, Bellary), Tamil or Telugu will serve almost equally well as a medium of communication. Dravidian tongues.

262. Hindōstāni is returned as mother tongue by but 23 per 1,000 of the population. Few people in Madras other than Muhammadans use the language in their homes, and even amidst the people of that faith its every day use is not universal. The Māppillas of the West Coast speak Malayālam; and of the remaining Muhammadan population not more than 56 per cent. have returned Hindōstāni as their mother tongue. But although comparatively few people habitually speak the language, there is probably no speech so valuable as a general medium of communication throughout the Presidency. Save in such outlying tracts as the agencies attached to Ganjām, Vizagapatam and Gōdāvari, there are few places where a Hindōstāni speaker cannot find some one to understand him. Hindōstāni. English is returned by 39,309 persons—a number slightly lower than that of the European and Anglo-Indian communities, which between them include 40,928 persons. But inasmuch as nearly 3,000 persons speak European languages other than English, the conclusion may be drawn that a certain number of Indians have returned themselves as habitually speaking English. That such return is perfectly correct in point of fact will be admitted by any one conversant with the life of the Presidency. English.

263. Many other languages returned as separate and distinct are in reality but dialects of some more widely known form of speech. Badaga is practically Canarese; Patnūli or Khatri is a dialect of Gujarāti, as is Konkani of Marāthi. Other languages.

264. A peculiar feature of the 1911 returns was a decrease of 316,000 Oriyā speakers in the district of Ganjām, with a marked rise in the proportion of the population returned as speaking Telugu. That such variation could be real is exceedingly improbable, and carelessness on the part of enumerators is the only possible explanation. In 1901 but 203 persons per 1,000 of the people of Ganjām population appeared as speaking Telugu, although "Telugu castes" accounted for 466 per 1,000 of the district population. In 1911 when the ratio of "Telugu castes" to the total population was as 453 : 1,000 Telugu speakers numbered 449 per 1,000 in the linguistic distribution—figures certainly more self-consistent.

CHANGES IN THE ADMINISTRATION. (1911–1912.)

265. On the 3rd November 1911, Sir Thomas David Gibson-Carmichael, *Bart.*, K.C.M.G. (afterwards Baron Carmichael of Skirling, G.C.I.E., K.C.M.G.), succeeded Sir Arthur Lawley, G.C.S.I., G.C.I.E., K.C.M.G., as Governor of Madras. Lord Carmichael resigned the office on the 29th March 1912, and the office of Governor devolved, under the provisions of section LXIII of 3 and 4 William IV, cap. 85, on the Hon'ble Sir Murray Hammick, K.C.S.I., C.I.E., I.C.S., Member of Council, who took his seat the next day. The Hon'ble Mr. V. Krishnaswami Aiyar, C.S.I., Member of Council, died on the 28th December 1911. The Hon'ble Mr. Pazhamarneri Sundaram Aiyar Sivaswami Aiyar, C.I.E., Advocate-General, Madras, was appointed an Ordinary Member of Council with effect from the 27th February 1912. A vacancy having occurred in the office of an Ordinary Member of Council consequent on the assumption by the Hon'ble Sir Murray Hammick, K.C.S.I., C.I.E., I.C.S., of the office of Governor, the Hon'ble Sir Harold Stuart, K.C.V.O., C.S.I., I.C.S., Acting Chief Secretary to Government, was appointed a Temporary Member of Council and took his seat on the 30th March 1912.

RELATIONS WITH TRIBUTARY STATES AND FRONTIER AFFAIRS.

TRAVANCORE STATE.

(M.E. 1086—16TH AUGUST 1910 TO 15TH AUGUST 1911.)

[*Report on the Administration of the Travancore State for 1086 M.E.*]

[The Maharaja of Travancore, His Highness Sri Padmanabha Dasa Vanchi Pala Sir Rama Varma Kulasekhara Kiritapati Manney Sultan Maharaja Raja Ramaraja Bahadur, Shamsher Jung, G.C.S.I., G.C.I.E., is a Kshatriya; his age is 55 and he has no male heirs. The area of the State is 7,129 square miles and the population according to the census of 1911 is 3,428,975. The annual subsidy paid to the British Government is Rs. 8,10,652. The present gross revenue is estimated to be Rs. 1,28,09,198. The strength of the military force maintained during the year was 1,474.]

General and Political.

266. The Maharaja of Venkatagiri and General Sir James Wolfe-Murray visited the State during the year.

Administration of the land.

267. The net demand for the year was Rs. 36,74,627 against Rs. 36,00,975 in M.E. 1085. The increase is mainly due to the sale of tank beds in connection with the extension of the Kodayar Irrigation work and to a change in account procedure,

Land Revenue.

under which the value of revenue received in kind from crown lands was credited at the market rate instead of as before at a fixed arbitrary rate of 11 chakrams perpara of paddy. Out of a total demand, including arrears, of Rs. 38,31,400, Rs. 36,98,952 were collected and Rs. 32,320 were written off, leaving a balance of Rs. 1,00,128, of which over Rs. 70,000 was either in dispute or covered by orders for payment in instalments.

Coercion.

268. The number of demand notices fell from 64,369 to 57,393; there were decreases also in the number of distraints and sales, but the amounts involved were in all cases larger than in the year 1085.

Revenue cases.

269. The number of revenue cases for disposal was swelled by the thanathu-chitta cases especially in the Kottayam division. Apart from these and the applications for land in the Cardamom Hills there was a general rise in the percentage of disposal.

270. There were 12 applications for loans, of which 2 were disposed of during the year. Agricultural loans.

271. The survey during the year was confined to special and miscellaneous cadastral surveys. A re-survey of the Nedumangad taluk was sanctioned and the work was started with a small staff towards the close of the year. Survey.

272. The settlement of all the taluks in the State has been completed. The small field establishment which was retained at the end of last year was also disbanded on the settlement of the Charikal lands in Tiruvellah taluk. The only work that remains to be done is the preparation of the final report on the operations of the department. Revenue settlement.

273. Special staffs were employed to bring the records up to date in certain taluks of the Padmanabhapuram, Trivandrum and Quilon divisions. Substantial progress has been made in the preparation of Land Record Registers in several of the taluks of the State. Land records.

274. A new taluk called Peermade was formed and is now included in the Devikulam division. A staff consisting of a Tahsildar and the necessary village and taluk establishments was sanctioned. Miscellaneous.

275. Four ordinary meetings and one special meeting of the Legislative Council were held during the year. The following Regulations were passed :— Protection. Legislation.

(1) To amend the High Court Regulation I of 1067.
(2) To provide for certain matters in connection with the taking of the census.
(3) To provide for the cutting and breaking of diminished, defaced or counterfeit British Indian silver coins.
(4) To consolidate and amend the law relating to trespass by cattle.
(5) To amend the Code of Civil Procedure, Regulation II of 1065, as amended by Regulation II of 1070.

276. The appointment of four prosecuting inspectors and two special guards raised the sanctioned strength of the Police force from 1,750 to 1,763 ; but at the end of 1086 the actual strength was 1,720. Ninety policemen were prosecuted during the year, of whom 12 were convicted and 9 were under trial at the close of the year. The total number of departmental punishments fell from 1,130 to 503. There were 4,048 cognisable cases for disposal in the year, of which 1,445 were referred as false, 335 were transferred to the undetected list, and 2,021 were charged, leaving a balance of 247 pending at the end of the year. The number of non-cognisable cases dealt with was 1,468 against 1,465 in the previous year. The percentage of conviction was 65 and that of property recovered was 32. There was a marked increase in the number of cases of receiving stolen property, but only 41 per cent. of the persons apprehended were convicted. Police.

277. The number of courts that exercised criminal jurisdiction was 63. The formation of the Peermade taluk necessitated the appointment of a first-class Magistrate, and five Tahsildars were invested with first-class magisterial powers. The number of offences reported rose from 17,080 to 17,586, of which 14,456, were offences under the Penal Code. The percentage of conviction in respect of persons charged fell from 28 to 26. The number of juvenile accused fell from 260 to 220; 99 were brought to trial and 24 convicted, none of whom were sent to the reformatory. The number of cases on the file of the Magistracy rose from 17,080 to 17,586 and including arrears and cases transferred the number of cases for disposal was 18,421, of which 18,022 were disposed of. The average duration of pendency rose from 36 to 40 days in preliminary enquiries and from 15 to 19 days in trials. The number of Magistrates with appellate jurisdiction was nine as in the previous year and they disposed of 1,091 appeals out of 1,105 for disposal, the average duration of appeals being 16 days. The percentages of confirmation, modification and reversal were 48, 10 and 36. The Sessions Courts disposed of 167 out of 170 cases, the average duration of a case being 13 days, and of 582 out of 598 appeals, averaging in duration 20 days, with a percentage of reversal of 41, against 35 in 1085. The High Court dealt with 13 referred cases, 195 appeals and 581 revision cases. Criminal justice.

278. Six hundred and nine prisoners were admitted into the Central Jail during the year and the daily average number of convicts was 429, or 23 more than in 1085. The admissions into hospital numbered 548, of which 510 were due to dysentery. Prisons.

There were 16 deaths. The number of jail offences fell from 223 to 146. The total earnings for the year amounted to Rs. 51,507 against Rs. 47,139 in 1085, and the total expenditure was Rs. 54,277 against Rs. 59,759 in 1085.

Civil justice.

279. (i) The total number of Civil Courts on the last day of 1086 was 41 against 39 in the previous year. The total number of suits filed increased from 51,312 to 52,266 and the number of appeals from 3,365 to 4,149.

Munsifs' Courts.

(ii) Inclusive of arrears, re-admission, etc., the number of cases for disposal was 32,023 ordinary suits and 34,837 small causes, of which 21,005 and 32,944 respectively were disposed of. The arrears rose from 12,870 to 12,911. The average duration of contested cases fell from 7 months 15 days to 6 months 20 days.

District Courts.

(iii) The opening of a second District Court at Kottayam brought about a considerable increase in the number of suits instituted and including the cases pending from the previous year the number for disposal was 1,405 ordinary suits and 35 small causes, of which 730 and 29 respectively were disposed of. The number of appeals for disposal was 4,638, of which 2,853 were disposed of and the arrears increased from 1,338 to 1,785. Of the Munsif's decrees 54 per cent. were confirmed against 57 per cent. in 1085, 18 per cent. were modified and 28 per cent. reversed.

High Court.

(iv) Three hundred and ninety-seven first appeals and 388 second appeals were preferred in the year against 347 and 438 respectively in 1085. Including arrears the total number for disposal was 1,345, of which 741 were disposed of, leaving a balance of 604. The percentages of confirmation, modification and reversal were 55, 27 and 18 respectively in the case of first appeals and 69, 8 and 23 in the case of second appeals.

Registration.

280. There were 63 sub-registrars' offices as in the previous year. The total number of documents presented for registration rose from 220,914 to 228,845. Over 99 per cent. of the documents presented were registered on the date of presentation. The receipts were Rs. 4,00,099 and the expenditure Rs. 1,59,442.

Military.

281. Lieut.-Col. F. W. Dawson went on furlough preparatory to retirement and Major R. De L. Faunce was appointed to the command of the Brigade. There were no courts-martial during the year and the conduct of the men was satisfactory. The strength of the Brigade rose from 1,441 to 1,474.

Production and Distribution.
Agriculture.

282. The usual experimental and demonstration work was carried on by the Agricultural Department. Accurate statistics of diseased cocoanut palms in the Kayankulam and Alleppey centres were taken and the infected trees were marked and numbered. The measures introduced by the department are reported to have produced an improvement in the general condition of the trees.

Season and Rainfall.

283. The season was not favourable from an agricultural point of view. The prices of food-grains rose slightly. The average rainfall gauged at 39 stations was 98 inches against 79 inches in the previous year.

Forests.

284. The total area under reserved forests was 2,330 square miles at the end of the year as against 2,325 square miles in 1085. Eight blocks of $25\frac{1}{2}$ square miles were proposed for reservation during the year. The total area of reserved lands at the close of the year was 155 square miles and 477 acres, or 10 square miles and 477 acres more than in the previous year. An area of 50 square miles and 177 acres was burnt during the year against 11 square miles and 410 acres of the previous year; but the damage done to the standing growth and fallen trees was small. The total quantity of timber removed was 1,001,347 cubic feet or 115,757 cubic feet more than in 1085. The net revenue rose from Rs. 2,21,254 to Rs. 3,14,495, the expenditure on communications and buildings being Rs. 28,510.

Factories.

285. There were 68 factories working at the end of the year. Of these, 34 were engaged in the manufacture of tea and the remainder were concerned with tiles and bricks, paper, cotton and coir yarn, the extraction of cocoanut-oil and the husking of paddy. The number of operatives at work was 5,819 including 791 women and 1,355 children. The working day varied from 6 to 12 hours.

Trade.

286. The value of exports rose from Rs. 3,28,09,037 to Rs. 3,70,99,409 and that of imports from Rs. 1,83,65,647 to Rs. 1,97,79,586. The new pier attracted more vessels to Alleppey, and the number which called at other ports declined. As usual the bulk of the trade was with British India.

287. The total expenditure on public works was Rs. 25,64,540. The length of the main roads maintained was 2,204 miles, of village roads 1,789 miles, traces 400 miles and canals and backwaters 160 miles. Rs. 3,02,607 were spent on the Kodayar Project thus raising the total outlay on these works to Rs. 61,59,518. The total amount spent on irrigation during the year was Rs. 3,93,273. The railway from Shencottah to Quilon continued to work at a loss; the guaranteed interest paid by the Darbar for the year being Rs. 1,65,566 against Rs. 1,70,971 in 1085. The survey of a line from Quilon to Trivandrum was completed. There were 195 anchal offices and 245 letter boxes against 192 and 227 respectively in 1085, but the number of articles dealt with decreased from 8,625,758 to 8,246,614.

Public Works Department. Roads. Irrigation. Railway.

288. The revenue of the year was Rs. 1,28,09,198 and the expenditure Rs. 1,18,61,958. A sum of Rs. 4,27,826 was written off on account of abnormal losses during the year leaving a net surplus of Rs. 5,19,414. The Darbar balance rose from Rs. 67,46,039 to Rs. 72,65,453. There was a general increase under almost all heads both in revenue and expenditure.

Revenue and Finance.

289. The number of births rose from 55,182 to 56,208 and the number of deaths from 47,382 to 50,092. The public health was generally satisfactory, though small-pox which had prevailed in a virulent form in the preceding year continued till about the middle of 1086. 174,631 persons were vaccinated against 158,834 in 1085. There were 21 hospitals and 28 dispensaries, but the number of in-patients treated was only 18,022 against 18,392 in 1085 and the number of out-patients 525,323 against 562,295, while the number of cases treated by itinerant officers fell by nearly 50 per cent. Two of the 69 vaidyasalas in existence in the previous year were closed. The total expenditure on medical relief during the year was Rs. 3,77,563 against Rs. 3,59,133 in the previous year. Three new town improvement committees were established. The total income of all eight was Rs. 83,890 and their expenditure Rs. 62,261.

Vital Statistics and Medical Service. Vaccination. Medical relief. Sanitation.

290. The Education Code which was introduced from the beginning of 1910 was in full operation throughout the year. Out of 1,213 schools from the managers of which applications were received for salary grants under the provision of the code, 912 received grants. Six thousand one hundred and seventy teachers applied for licences, and 4,909 licences were issued. School-leaving certificates were issued for the first time in 1086 under the supervision of a Board of Examiners chosen from the professorial and inspectorate staff and controlled by the Director. The Teachers' College at Trivandrum was affiliated with the Madras University for the L.T. Degree examination. A reciprocal arrangement was arrived at between Travancore and Cochin States by which the rules regarding the recognition of schools, the licensing of teachers, the admission, withdrawal and attendance of pupils and such other matters as affected the schools in general were made applicable to the schools in both the States. The Travancore Darbar also undertook to train in the Teachers' College at Trivandrum the graduate teachers and gymnastic instructors of Cochin. At the close of the year there were 1,648 recognised schools with 159,668 scholars against 1,810 such schools and 152,645 scholars at the end of the previous year. The total receipts and expenditure of the department were Rs. 1,72,584 and Rs. 7,95,713 respectively. Female education maintained the position which it had reached and there was substantial improvement in the matter of attendance and the method of teaching. The number of recognised girls' schools rose from 208 to 231 and there is a general increase in the number of boys of the backward classes attending recognised schools.

Education.

291. Six numbers of the Travancore Archæological Series were published. The Superintendent visited 32 places in Travancore, 2 places in the Tinnevelly district and 1 in the Cochin State, collected 105 inscriptions and examined 35 copper plates preserved in the Huzur Treasury, Trivandrum, those lent by the Vicar-General of the Carmelite Mission at Verapoli and the copper plate preserved by the Jews at Cochin.

Archæology.

292. The fifth decennial census was taken on the morning of the 11th March 1911. On account of the configuration of the country and of the scattered disposition of the houses, most of which were within enclosures, a night census was considered unsuitable in Travancore and the final revision was conducted by daylight on the succeeding morning.

Census.

COCHIN STATE.

(M.E. 1086—17TH AUGUST 1910 TO 16TH AUGUST 1911.)

[Report on the Administration of the Cochin State for 1086 M.E.]

[His Highness Sir Sri Rama Varma, G.C.S.I., Raja of Cochin, is a Kshatriya. He is 59 years of age and has male heirs. He was educated privately in English, Sanskrit and Malayalam. The Raja pays a tribute of Rs. 2,00,089 and maintains a military force of 290 men. According to the census of 1911 the population of the State was 918,110. The gross revenue of the State is calculated at Rs. 43,52,797.

General and Political.

293. His Highness the Raja attended the State Agricultural and Industrial Exhibition and Cattle Show at Trichur and also attended a Darbar for the presentation by the British Resident of the sanads of Mahamahopadhyaya to Killimangalath Narayanan Nambooripad and Valia Godavarma Raja of the Cranganore Chief's family. His Highness spent two and a half months of the summer of 1911 at Coonoor. Mr. A. R. Banerji, I.C.S., continued to be Diwan of the State throughout the year.

Administration of the Land.

Land revenue.

Loans.

294. The total current demand was Rs. 11,75,377, of which a sum of Rs. 11,65,885 or 99·2 per cent. was collected leaving a balance of Rs. 9,468. Of the arrear demand of Rs. 5,335, Rs. 3,999 was collected and Rs. 916 written off leaving a balance of Rs. 420. The total number of coercive measures rose from 3,179 to 4,405, of which 3,814 were demand notices and 572 distraints. A sum of Rs. 10,000 was advanced to agriculturists during the year.

Fisheries.

295. A Fishery Department was organised during the year and a sum of Rs. 9,452 was collected on account of licence fees and rent of fishing areas in the Cochin backwater.

Ward's estates.

296. The Estates of Kavalapara and Punnathur which were under Sirkar management were restored to the respective owners who attained their majority.

Protection.

Legislation.

297. A Census Regulation was passed as Regulation I of 1086. The Cochin Criminal Procedure Code was revised and passed as Regulation II of 1086. Certain amendments to the Cochin Municipal and Sanitary Improvement Regulation and the Registration of Births and Deaths Regulation were enacted as Regulations III and IV respectively. Besides the above, a Proclamation having the force of law was promulgated to provide for the better protection of Government telegraph lines within the State. The Darbar also issued several rules under existing Regulations.

Police.

298. The sanctioned strength of 63 officers and 477 men was maintained throughout the year. The number of departmental punishments rose from 416 to 446, but good service promotions were given to 4, good service entries to 172 and money rewards to 76 men. The total number of cases investigated by the Police was 1,553, of which 1,244 were charged. Including 60 cases pending from 1085 the total number charged during the year was 1,304 and the percentage of conviction to cases charged rose from 81·03 to 88·2. There was a reduction in the number of grave crimes reported. The loss of property involved in cases reported by the Police was Rs. 19,262, of which Rs. 10,967 worth of property or 56·93 per cent. was recovered.

Criminal justice.

299. Original jurisdiction was exercised by 2 session courts and 1 first-class, 7 second-class and 2 third-class magistrates' courts. The magistrates had for disposal 3,849 cases, involving 6,664 persons. Of these, 3,784 cases were disposed of, leaving a balance of 65 at the close of the year. Of the cases disposed of, 61·54 per cent. related to offences under the Penal Code. The percentage of conviction fell from 43·14 to 40·34. The District Magistrate dealt with 323 appeals and disposed of 313. Twenty-five out of 27 appeals were disposed of by the sessions courts. The chief court disposed of all the 12 appeals presented to it.

Prisons.

300. At the end of the year there were 164 convicts, 6 under-trial and 7 civil prisoners in the Ernakulam Jail. The number of jails remained the same as in the previous year, namely, 1 central and 6 sub-jails. The daily average number of convicts fell from 120·8 to 114·49. The total cost of maintenance of the Central Jail was Rs. 17,510, or Rs. 87 less than in the previous year. The jail rules

framed in 1083 continued to work satisfactorily. The health of the prisoners was not as satisfactory as in the previous year.

Civil justice.

301. Two district courts and 6 munsifs' courts exercised original jurisdiction as in the previous year. The total number of original and appellate suits filed was 9,929 and the disposals were 9,986. There were 667 suits pending at the close of the year, of which 138 were over six months old. The chief court had 560 appeals, of which 347 were disposed of and 160 revision petitions, of which 137 were disposed of, leaving balances of 213 and 23 respectively against 237 and 39 in the previous year.

Registration.

302. The number of registry offices was 17 as in the previous year. The total number of documents registered was 45,939, and 99·6 per cent. were registered on the day of presentation. The average value of a document registered was Rs. 426.

Military.

303. The strength of the military force maintained in the State at the end of the year was 242 men and 28 officers, against a total sanctioned strength of 274 men of all ranks. The cost of maintenance including that of the State band was Rs. 45,420 as against Rs. 46,456 in the previous year.

Production and Distribution.

Agriculture.

Season.

304. The Agricultural Department continued its investigation into the life history of insect pests and organised the third Agricultural and Industrial Exhibition and Cattle show at Trichur besides issuing the usual agricultural bulletins. The season and rainfall were slightly unfavourable to agriculturists during the year.

Forests.

Coffee.

Rubber.

Timber.

305. The forest area continued to be the same as in the previous year, namely, 605 square miles. The receipts amounted to Rs. 8,12,364 against Rs. 7,47,358 in the previous year and the expenditure to Rs. 3,47,575 against Rs. 3,55,351 in 1085. The total area under coffee cultivation was 3,053 acres as against 3,318 in the previous year. The total yield was 471,229 lb. of coffee, or an average of 166 lbs. per acre of mature plants. The area taken up for rubber cultivation at the end of the year was 10,429 acres, of which 4,787 acres were fully planted. The total quantity of timber transported by the tramway fell from 29,376 candies to 21,506.

Trade.

306. One hundred and forty-four vessels of a total tonnage of 138,878 cleared at Malipuram and a sum of Rs. 14,218 was collected as port dues.

Public Works.

Roads.

Irrigation.

307. The total expenditure of the department during the year amounted to Rs. 5,34,552 as against Rs. 4,96,143 in 1085. The total expenditure on original communications was Rs. 32,039 and under repairs Rs. 1,32,356. Four hundred and ninety-six miles of roads were maintained as against 485 miles in 1085. The expenditure on irrigation was Rs. 43,488.

Railway.

308. The gross earnings for the year 1910 amounted to Rs. 5,62,461. Deducting the total expenditure of Rs. 3,22,779 the net earnings give a return of 3·7 per cent. on the capital outlay.

Anchal.

309. The number of anchal offices remained the same as in the previous year. The receipts and expenditure amounted to Rs. 17,325 and 29,912 as against Rs. 12,511 and 18,332 respectively in the previous year. The increase in expenditure is due to the payment of Rs. 7,357 to the South Indian Railway Company on account of haulage charges of Railway mail vans during the three previous years. The anchal rates were revised during the year.

Revenue and Finance.

310. The total receipts and expenditure under the service heads were Rs. 43,52,797 and Rs. 35,49,056 as against Rs. 39,56,701 and Rs. 33,27,166 respectively in the previous year. The sinking fund was raised to Rs. 11,69,896 and the net liabilities of the State at the close of the year was Rs. 1,43,851 as against Rs. 9,47,592 in the previous year. A sum of Rs. 10 lakhs was withdrawn from the sinking fund and the 5 per cent. State Debenture Loan was repaid to the extent of Rs. 9,58,000.

Customs.

311. The Darbar received from the British Government Rs. 2,10,594 as half the net customs collections at the port of Cochin in 1910–1911 and Rs. 39,604 as the difference between half the net customs collections in 1908–1909 and 1909–1910 and the amount paid as compensation under the interportal convention for those years.

Salt.

312. The receipts from the sale of salt rose from Rs. 3,60,245 to Rs. 3,69,590, but owing to the increase in population shown by the census there was an apparent fall in the consumption per head from 23·52 lbs. to 21·28 lbs.

Excise. 313. The sum of Rs. 19,000 representing the annual rental under opium and ganja was collected. The tobacco shops were as usual sold by auction and fetched Rs. 1,36,421. The gross revenue under excise amounted to Rs. 9,78,385 and the expenditure to Rs. 1,69,917.

Stamps. 314. A contract for the supply of stamps was entered into with Messrs. John Dickinson & Co., London. The receipts amounted to Rs. 4,31,772 and the expenditure to Rs. 28,367 as against Rs. 3,93,776 and Rs. 20,524 respectively in the previous year.

Vital Statistics and Medical Services. 315. The births and deaths registered during the year were 16,602 and 11,876 respectively, the percentages to population according to the census of 1911 being 1·80 of births and 1·18 of deaths. The number of vaccinations performed was 34,369. There were 11 hospitals, 9 dispensaries, 2 asylums and 5,324 in-patients and 260,649 out-patients were treated. The total expenditure on account of medical relief including the two asylums and the veterinary hospital amounted to Rs. 89,112 as against 89,172 in 1085.

Sanitation. 316. The new town councils were entrusted with the sanitation of Ernakulam, Mattanchery and Trichur. A scheme was initiated for improving the foreshore at Ernakulam and a special Engineer was appointed in March 1911 to investigate the possibilities of a water-supply. Compulsory scavenging was introduced into four towns. A sum of Rs. 2,142 was spent in cleaning tanks and sinking wells. The Darbar spent a sum of Rs. 20,521 on sanitation and conservancy excluding a contribution of Rs. 19,328 to the Town Councils. The expenditure incurred by the latter was Rs. 33,014.

Education. 317. An Education Code was passed for the guidance and control of all the educational institutions in the State. The number of Sirkar schools rose from 93 to 102, and the number of pupils from 16,031 to 17,265. The number of aided schools fell from 250 to 216, owing to the removal of some inefficient institutions. The total number of pupils under instruction in all schools fell from 54,841 to 51,363, of whom 36,224 were boys and 15,139 girls. There were 12 Sirkar and 1 aided night school and the strength of the former was 738. Female education continued to make satisfactory progress. Special attention was paid to the teaching of music and needle work. The old normal school was completely reorganised, to meet modern requirements, and opened in June 1911. Under the scheme for co-operation and joint action between the Educational Departments of Cochin and Travancore, the graduated teachers of the State are to be trained in the Training College at Trivandrum.

Miscellaneous. 318. The Ethnographical survey of the State has been completed. Only two monuments of historical or archæological interest were discovered during the year.

Devaswoms and charities. 319. The total receipt from devaswoms amounted to Rs. 3,83,314 as against Rs. 4,07,102 in the previous year, and the expenditure amounted to Rs. 3,46,722 as against Rs. 3,33,906 in 1085. The net receipts of the department for the year was Rs. 36,592. This, with the surplus of Rs. 73,139 at the end of the previous year, raised the balance to Rs. 1,09,731 at the end of the year. The balance to the credit of devaswoms at the end of the year amounted to Rs. 9,70,064. The expenditure under charities amounted to Rs. 42,910 as against Rs. 48,934 in 1085.

General. 320. Arrangements were made for the translation and printing of some old records in Portuguese, Dutch and other languages. A State Manual on the lines of the District Gazetteers of British India was completed and published. A Registration Manual was also printed and issued during the year.

Census. 321. The fifth decennial census was taken on the 11th March 1911. The population of the State was found to have risen from 812,025 in 1901 to 918,110 giving a mean density of 647·58 per square mile as against 596·42 in 1901.

PUDUKKŌTTAI STATE.

(FASLI 1321—1ST JULY 1911 TO 30TH JUNE 1912.)

[*Report on the Administration of Pudukkōttai for fasli 1321.*]

[His Highness Sri Brahadamba Das Raja Martanda Bhairava Tondiman Bahadur, Raja of Pudukkōttai, is a Kallar by caste and a Saivite by religion. He is 36 years of age and unmarried. He was educated by an English tutor. The population of the State according to the census of 1911 was 411,878. The actual receipts for fasli 1321 amounted to Rs. 16·70 lakhs. The Raja pays no tribute. The Military force maintained by the State consists of 110 infantry and 19 men of the Raja's body-guard. The Collector of Trichinopoly is *ex-officio* Political Agent for the State.]

General and Political.

322. His Highness the Raja returned to Pudukkōttai in November 1911, when his health, which had given cause for great anxiety, was so much better that he was enabled to follow most of his ordinary occupations and to devote his full attention to affairs of State. His Highness attended the Imperial Darbar at Delhi in December 1911 and performed the homage due to the King-Emperor. On his return journey he paid a State visit to His Excellency the Governor at Madras on the 1st January 1912. His Highness left for Europe on the 23rd January 1912. In honour of the occasion of Their Imperial Majesties' visit to India His Highness, on his return from Delhi, announced that he had decided to remit for one year the Village Service Cess on all fully assessed lands, which amounted to Rs. 20,000, and to abolish permanently the tax on weavers' looms. He also extended the boon of free elementary education to all parts of Pudukkōttai outside the capital, and granted certain special allowances to the lower ranks of State servants and pensioners. The personnel of the State Council remained unchanged (Mr. G. T. H. Bracken, I.C.S., Superintendent, M.R.Ry. V. R. Durai Raja Avargal, Diwan, and the Chief Judge M.R.Ry. C. Rajagopala Pillai Avargal, *ex-officio* Councillor).

Administration of the land.

Current demand.

Old arrears.

323. The total land revenue demand rose from Rs. 9,04,143 to Rs. 9,29,366. Excluding quit-rents not brought to Revenue account and Revenue Miscellaneous, the current demand was Rs. 8,46,163 of which Rs. 7,99,817 or 94·52 per cent. was collected against 92·88 per cent. in fasli 1320. Out of the arrear balance of Rs. 2,27,210 a sum of Rs. 83,196 was collected and Rs. 69,221 written off, leaving Rs. 74,793 outstanding. Of the arrears of revenue amounting to Rs. 23,194 which accrued in the late Chinnaranmanai jaghir prior to its resumption, Rs. 465 were collected and Rs. 12,653 written off, leaving a balance of Rs. 10,076 which is in course of adjustment. The special jamabandi for the settlement of old arrears of revenue was brought to a conclusion. The arrears which at the beginning of fasli 1319 stood at Rs. 5,10,138 were reduced to Rs. 84,868 at the end of fasli 1321 and most of this has already been or will shortly be adjusted. The quit-rent arrears have been reduced from Rs. 1,09,030 to Rs. 19,632. It is estimated that 95 per cent. of the landholders of the State are now free from the encumbrance of their old debts, which have undoubtedly had a demoralising effect during the past eight years. New rules now provide for the automatic disposal of arrears at the annual jamabandi.

Loans.

A sum of Rs. 1,210 was advanced for well-sinking. The further revision of the rules governing the grant of agricultural loans is under consideration.

Land Revenue charges.

The expenditure under "Land Revenue" was Rs. 1,12,322 or 13·7 per cent. of the current demand as compared with 10·9 per cent. in the preceding fasli. In Kolattur taluk the new village accounts based on the settlement were introduced and a regular jamabandi conducted.

Survey.

324. In November the revision of Field Measurement books and the survey of minor inams were taken up in Kolattur taluk. Progress was slow owing to the unsatisfactory nature of the old survey records. Two villages were completed and a beginning made in twenty other villages. The survey of 24 Nattukottai Chetti villages having already been completed, attention was directed to the revenue records to ascertain the extent of unauthorised occupations, a matter of considerable difficulty. Incidentally advantage was taken of the opportunity to improve the various villages by widening roads and streets and to provide for future extensions on a definite plan. The greater part of the work in six villages was finished and a model Chetti village was aligned in which settlement is likely to begin shortly.

Settlement.

The work of Revenue Settlement which began in fasli 1316 was drawing to a close at the end of the fasli; and the most important part of the work, the introduction of the new rates, was almost completed. The new accounts for all the villages of

Kolattur and Alangudi taluks were prepared and handed over to the Revenue Department before the close of the fasli, and those for Tirumayyam taluk were in course of preparation. The result of the new settlement is to increase the land revenue of Kolattur taluk from Rs. 2,31,020 to Rs. 2,36,111 equivalent to 2·2 per cent., and of Alangudi taluk from Rs. 2,35,982 to Rs. 2,45,738 equivalent to 4·1 per cent., while the incidence of the assessment has been made more equitable. All the British officers lent to the State for settlement work reverted to the British service at the end of the fasli with the exception of one supervisor.

Protection. Legislation.

325. Five regulations were passed during the fasli, concerned respectively with Stamps, General amendments, Treasure Trove, Municipality, and Compulsory vaccination. The annual meeting of the representative assembly, consisting of 18 elected and 12 nominated members, was held on August 16, 1912, and several useful suggestions were made.

Police.

326. The police force consisted of 1 Deputy Superintendent, 3 Inspectors, 9 Sub-Inspectors and 266 head constables and constables. The District Superintendent of Police, Trichinopoly, is *ex-officio* Superintendent of the State Police. On the whole the conduct of the force was fairly satisfactory and there were a few cases of grave misconduct. Rewards for good work to the amount of Rs. 350 were distributed both to members of the force and to outsiders who assisted them. The

Crime.

number of cases reported rose from 2,510 to 2,792. The detection of grave crime was less successful than in the preceding fasli, especially in regard to house-breaking. The preventive sections of the Criminal Procedure Code were used more freely and

Criminal Courts.

the steps taken were markedly effective in checking crime. The total number of cases coming before 17 Magistrates was 4,499, an increase of 23 over the figures of the preceding fasli. Of those 1,888 were cases under the Indian Penal Code compared with 2,004 in the preceding fasli, the decrease in offences against property being marked. Magisterial Courts disposed of 4,358 cases (96·86 per cent.) as against 4,349 (97·16 per cent.) in fasli 1320 leaving a balance of 141 cases pending at the end of the fasli. The percentage of convictions was considerably higher, and, in respect of offences under the Indian Penal Code, rose from 12·77 to 16·22. Of 8 cases

Appeals.

committed to the Sessions, 5 ended in conviction. The Chief Court received 14 appeals and 45 revision petitions, and the Chief Magistrate 94 appeals and 51 revision petitions. The percentage of confirmation in the case of appeals presented to the Chief Magistrate was 61·33, a marked improvement on the percentage of 40·62 in fasli 1320, and the work of the Subordinate Magistracy showed distinct improvement.

Prisons.

The number of admissions to the jails (1 central and 7 subsidiary) was 470 against 455 in the preceding fasli, and in addition to gardening work the prisoners were employed in oil-pressing, weaving and aluminium metal work. In the absence of a Reformatory it was arranged that juvenile convicts should be employed in the public workshops where they could learn useful trades apart from ordinary convicts. The receipts fell slightly from Rs. 2,934 to Rs. 2,788, and expenditure also fell, in spite of the larger number of prisoners, from Rs. 9,175 to Rs. 9,016, the average dieting charge decreasing from As. 1–10 to As. 1–9. The health of the prisoners was good, the daily average of sickness being 0·39 per cent.

Civil Courts.

327. The number of Civil Courts was 12, the Chief Court with its Registrar and 11 rural Small Cause Courts. The number of suits instituted fell from 8,712 to 7,824, while 8,002 suits were disposed of out of a total of 8,995, leaving a balance of 993 suits pending at the end of the fasli compared with 1,047 suits pending at the end of the preceding fasli. The average duration of contested suits increased from 163 to 193 days. The number of small cause suits decreased except in the case of the Judge's file where the number remained stationary. The average duration of contested suits rose in all Courts, but disposals improved. There were 239 regular appeals for disposal and 47 second appeals. The volume of litigation was less than in the preceding fasli, but the value of the claims involved showed a tendency to rise. The small cause jurisdiction of the Judges of the Chief Court has been raised from Rs. 50 to Rs. 100 and the change is likely to expedite the disposal of suits.

Registration.

328. The number of Registry offices was reduced from 13 to 12; on an average the jurisdiction of each office extended over 71 square miles of cultivable land and a population of 34,323. The number of registrations relating to immoveable property fell from 16,144 to 15,591, and of registrations relating to moveable property from 1,718 to 1,584, the fall in both cases being indicative of the growing prosperity of the

agricultural population. The aggregate value of the documents registered was Rs. 47,45,395 as against Rs. 42,77,123 in fasli 1320. The percentage of documents registered on the day of presentation rose from 89·72 to 95·12. Receipts rose from Rs. 31,418 to Rs. 31,889 while expenditure fell from Rs. 23,062 to Rs. 22,581.

329. The military force of 110 infantry and 19 cavalry was maintained at a cost of Rs. 21,070. Military.

330. The agricultural season was on the whole fair. The rainfall of the earlier months was deficient and the delay in the arrival of the north-east monsoon caused anxiety, but fortunately there were heavy downpours in November and December. The agricultural population were helped by the high prices obtained for their produce. The total rainfall fell from 33·98 inches to 30·77 inches. The price of staple food-grains exceeded the average of the preceding five years. **Production and Distribution.** Season and crops.

331. The area under "Forest" was approximately 120 square miles including 7 game preserves covering an area of 55 square miles. In addition to reserves and plantations the Forest Department managed the valuable stone quarries found in many parts of the State. Some 130 acres of waste land were prepared for casuarina and palmyra topes and some two lakhs of seedlings were planted, most of which are reported to be thriving. Two scrub jungles were taken up for re-afforestation. The gross receipts amounted to Rs. 53,177 and the gross expenditure to Rs. 24,043. The whole current demand was realised and a considerable part of the arrears was also collected. Forests.

332. For executive purposes the Public Works Department was organised in three divisions, one for Roads and Buildings and two for Irrigation. The total expenditure of the department rose from Rs. 2,70,427 to Rs. 3,38,845. The expenditure on irrigation was Rs. 87,257 or 91 per cent. of the allotment in the revised estimate, as against a percentage of 65 in the preceding fasli. The expenditure of the Minor Irrigation Department was Rs. 15,569 or 62·27 per cent. of the allotment. The short outlay was due partly to the absence of suitable contractors and partly to the pre-occupation of Revenue officials in Settlement work. The total mileage of maintained road was 307, of which 214 miles were metalled. Establishment charges amounted to Rs. 42,142 and represented 13 per cent. of the total outlay on works. Public works.

333. The effects of recent reorganisation are now apparent and the revenue for the year again exceeded 16 lakhs. Land Revenue brought in Rs. 53,736 more than was anticipated owing to the sale of certain valuable house-sites, and receipts from "Excise" and "Civil Works" were also above the estimate. On the other hand Stamp Revenue fell off and there was a decrease of Rs. 26,775 under "Other receipts" due to the accidental circumstance that the interest on investments was not realised till after the close of the fasli. There was thus a steady expansion of revenue under all heads except Stamps. Expenditure rose from Rs. 14,04,556 to Rs. 15,62,934 and approximated fairly closely to the revised estimate except under the heads "Irrigation" and "Civil Works," in which there was a considerable shortage of outlay. The charges connected with Law and Justice and Education have increased somewhat rapidly and the outlay on irrigation has expanded. Out of the closing balance of Rs. 23·58 lakhs, 13 lakhs were invested in Government promissory-notes or fixed deposit, an increase of two lakhs over the figures of the preceding fasli. If deductions for extraordinary non-recurring expenditure be made, revenue has increased from Rs. 15·63 lakhs in fasli 1318 to Rs. 16·30 lakhs in fasli 1321 or by 4·3 per cent. while expenditure has grown from Rs. 11·57 lakhs to Rs. 13·72 lakhs or by 18·6 per cent. The disproportion of these percentages is, however, largely corrected by the fact that an item of Rs. 35,000 of fixed revenue from "Interest" has owing to accidental causes been omitted from the accounts of fasli 1321, while since fasli 1318 items of taxation yielding another Rs. 30,000 have been remitted. **Revenue and Finance.**

334. Public health was on the whole good. There were a few outbreaks of cholera and small-pox in places, but no serious mortality. No cases of plague were reported. The number of births and deaths reported was slightly less than in the preceding fasli. The birth and death-rates of the population were 17·3 and 15·2 per mille respectively. The medical institutions of the State are a Town Hospital with 50 beds, a Women and Children's Dispensary and 9 rural dispensaries. At the Town Hospital the number of in-patients and the daily average attendance fell, but the number of surgical operations increased. At all other institutions both **Vital Statistics and Medical Relief.** Medical relief.

the number of patients and the daily average attendance showed an increase. The total expenditure rose from Rs. 38,441 to Rs. 40,928. The construction of the new Women and Children's Hospital in the town was approaching completion and a new rural dispensary was in process of erection at the end of the fasli.

Vaccination. Including 334 re-vaccinations 11,805 cases were vaccinated, an increase of 1,530. The percentage of success was 98·95. Compulsory vaccination was extended to all parts of the State with effect from 1st October 1911. The average cost of each successful vaccination rose from As. 4–11 to As. 5–6.

Town conservancy. The conservancy of the town of Pudukkōttai was controlled by the Sanitary Board until 1st April 1912 when a Municipal Council was constituted under the terms of Regulation II of 1912. The new water-works continued to give an uninterrupted supply of filtered water in the main part of the town. Estimates have been sanctioned for the construction of settling tanks and measures to increase the storage capacity of the reservoir and the quality of the water. The general health of the town was satisfactory.

Instruction. 335. The educational institutions under direct State management consisted of a second grade college, 2 lower secondary, 3 special and 130 primary schools. The schools under private management were 1 lower secondary and 158 primary schools which received grants-in-aid from the State, and 102 unaided schools. Elementary education is free throughout the State except in the capital. The two State secondary schools worked well and the attendance increased in both from 112 to 166 and from 97 to 140, respectively. The State made a grant of Rs. 2,000 towards the new building for the Lutheran Mission School in Pudukkōttai. The number of State primary schools rose from 118 to 130 while the number of aided schools decreased from 165 to 159 and of unaided schools from 108 to 102. The decrease in the number of aided schools was due mainly to the stricter insistence on the proper qualification of the teachers employed. Grants-in-aid increased from Rs. 7,923 to Rs. 14,190. The number of boys receiving instruction in State and aided schools rose from 9,831 to 11,284, and the number of girls rose from 1,092 to 1,157. Seven new school-houses were under construction during the year and 26 were repaired. The number of stipendiary students in the weaving school rose from 10 to 14. The Vani Vilasa Veda Sastra Padasala had 25 students on the rolls

College. against 21 in the preceding fasli. The average daily attendence at the college rose from 502 to 534. Forty-five pupils appeared for the secondary school-leaving certificate examination and the percentage of marks obtained exceeded the Presi-

Finance. dency average in almost all subjects. The expenditure under all heads (exclusive of the college, the net expenditure on which was Rs. 20,703) rose from Rs. 43,074 to Rs. 51,844.

BANGANAPALLE STATE. (1911–1912.)

[*Administration Report of the Banganapalle State for the official year 1911–1912.*]

[Nawab Saiyid Ghulam Ali Khan Bahadur, Nawab of Banganapalle, is a Muhammadan of the Shiah sect. His age is 38 and he has male heirs. He was educated privately at Banganapalle and is acquainted with Urdu, Telugu and English. The Nawab pays no tribute and maintains no military force. The population of the State according to the census of 1911 was 39,356. The gross revenue is estimated at Rs. 2·87 lakhs. The Collector of Kurnool is Political Agent for the State.]

Political and General. 336. The State continued to be administered by the Nawab with the assistance of his Diwan.

Administration of the land. 337. The total demand under Land Revenue was Rs. 1,91,067, of which Rupees 1,86,502 were collected. An amount of Rs. 6,600 was disbursed in loans to agriculturists. On account of the unfavourable character of the season an additional sum of Rs. 10,000 has been sanctioned by the Durbar for Takkavi loans.

Forests. 338. A Forest Department was organised during the year. Five blocks have been proposed for reservation, of which three blocks have already been demarcated.

Protection. Police. 339. A strength of 77 of all ranks was maintained, as in the preceding year. Of 72 persons sent for trial 21 were convicted. The percentage of convictions to persons charged fell from 32·7 to 29·1.

Criminal Courts. 340. There were 181 criminal cases during the year, of which 153 were tried by the Tahsildar-Magistrate and 28 by the Diwan. There were five appeals to the Nawab's Court.

341. The Munsif's Court disposed of 223 out of 249 cases. The Diwan's Court heard 19 out of 24 appeals and confirmed the decisions in ten cases. **Civil justice.**

342. The number of documents for registration fell from 900 to 866. **Registration.**

343. The crops failed largely in the Northern and Central firkas of the State. There was a general rise in the prices of food-grains. **Production and Distribution.**

344. Rupees 52,943 were spent on public works. Of this sum Rs. 12,481 were devoted to roads and Rs. 21,711 to wells and irrigation. **Public works.**

345. The total receipts for the year again fell slightly to Rs. 2,63,028. The balance at the close of the year was Rs. 3,48,131, as against Rs. 3,74,602 at the close of the last year. The decrease in the receipts was due to the character of the season, while unforeseen expenditure connected with the Coronation Durbar at Delhi was mainly responsible for the decrease in the balance. **Revenue and Finance.**

346. The number of births registered was 1,153 and the number of deaths 1,000. The average daily attendance at the State Hospital again rose from 105 to 127. **Vital Statistics and Medical Services.**

347. The daily average of attendance at all schools again rose from 878 to 893. The total expenditure on education was Rs. 8,493 as against Rs. 7,304 last year. The total number of pupils under instruction in both State and aided schools was 1,174. **Instruction.**

348. The receipts of the Municipality, including a State grant of Rs. 4,000, amounted to Rs. 10,007, but considerable sums still awaited collection at the end of the year. The widening of congested lanes has done much to improve the sanitation of the town. **Municipal Council.**

SANDŪR STATE. (1911–1912.)

[*Administration Report of the Sandūr State for the official year 1911–1912.*]

[The Raja of Sandūr, Raja Srimant Venkatarao, Rao Saheb, Hindu Rao Ghorpadé Mamlukatmadar, Senapati, is a Mahratta. He is 20 years of age. He has this year completed his course of education at Newington under the Court of Wards and is now receiving training in administrative work in Sandūr. There are no male heirs. The Raja pays no tribute and maintains no military force. According to the census of 1911 the population of the State was 13,517. The estimated gross revenue is Rs. 1,21,060. The State is administered by the Diwan under the general control of the Collector of Bellary, who is Political Agent.]

349. M.R.Ry. Diwan Bahadur T. Kothandarama Nayudu Garu continued to hold the office of Diwan. **General and Political.**

350. Receipts from land revenue fell from Rs. 19,054 to Rs. 18,280. **Administration of the land.**

351. The police force consisted of 1 Inspector, 5 Head Constables and 32 Constables. They reported 26 cases of which 23 ended in conviction. **Protection. Police.**

352. The Diwan disposed of 100 criminal cases and 19 civil suits. There were 2 civil and 2 criminal appeals to the Political Agent. **Courts.**

353. The rainfall was 23·86 inches as against an average for the last five years of 25·55. Forest revenue fell from Rs. 11,683 to Rs. 11,468, of which Rs. 8,000 represents rent paid by the British Government. The General Sandūr Mining Company, employing 1,094 coolies on the last day of the official year, transported 83,192 tons of manganese ore which is the highest figure yet recorded. **Production and Distribution.**

354. Receipts fell from Rs. 1,21,640 to Rs. 84,996. The difference is due chiefly to the fact that last year's figures included an arrear dead rent of Rs. 22,000 due by the General Sandūr Mining Company and the current dead rent at the maximum fixed by the lease. Expenditure rose to Rs. 65,587 from Rs. 59,747, the increase being mainly under the head of Public Works. **Revenue and Finance.**

355. There was a further fall in the birth rate from 36 to 34 per thousand, and an increase in the death rate from 28 to 57 per thousand. The year was unhealthy, and marked by a destructive outbreak of plague which was responsible for 100 deaths. The daily average attendance at the dispensary was 40·78. Further progress was made in the widening of streets in Sandūr and the opening of new ones. **Vital Statistics. Sanitation.**

Education.

356. The attendance fell in all schools. The total expenditure was Rs. 1,872 on seven State and aided schools. The average daily attendance for all schools was 210. One Elementary school closed last year was re-opened.

CONDITION OF THE PEOPLE.

(FASLI 1321—1ST JULY 1911 TO 30TH JUNE 1912.)

357. The south-west monsoon of fasli 1321 was on the whole unfavourable. The rainfall was deficient except in a few districts during the first three months of the monsoon, and although there was some improvement in September the rainfall was still generally below the average. The latter month was marked by a destructive cyclone in Ganjām and by heavy floods in the Gōdāvari river which did much damage to crops. The areas under first dry crop and under first wet crop were generally below the average. The north-east monsoon was less unfavourable and the rainfall was above the average in many districts in November and December, although there was some deficiency, except upon the West Coast, in October the opening month of the monsoon. Even with this relatively favourable monsoon, crops were adversely affected in Vizagapatam, Bellary, Coimbatore and Malabar. The rainfall in the dry weather and in the hot weather was below the average in almost all districts. The total area under cultivation with first crops was 33,068,000 acres against a normal extent of 32,398,000 acres, and the aggregate cropped area was 37,380,000 acres against a normal area of 36,686,000 acres. Paddy, ground-nut, sugarcane, cotton and tobacco showed an increase and other crops a decrease during the year. The prices of all the principal grains, although generally higher than in the preceding year, were below scarcity rates everywhere, but the prices of rice in Kistna, Anantapur, Trichinopoly, Tanjore and Rāmnād, of ragi in Vizagapatam, Gōdāvari, Kistna, Anantapur and Salem, of cholam in Cuddapah, Nellore, Madura and Rāmnād, and of cumbu in Madura and Rāmnād were above the warning rates. The stocks of grains were generally sufficient and the exports of food-grains rose considerably, while imports diminished. The total loss of cattle from diseases was 51,354 against 76,057 in the preceding year. The decrease was very considerable under rinderpest, which accounted for 57 per cent. fewer deaths than in last year. Preventive inoculation against rinderpest was carried on in all districts except Guntūr, Kurnool, Anantapur, Cuddapah, South Arcot, North Arcot and Salem which were practically free from the disease. Apart from deterioration of crops caused by the irregularities of the monsoons, some deterioration was reported in the quality of ground-nuts and Cambodia cotton. This seems to be due, in the former case, largely to the extended cultivation of this crop in districts where the rainfall is not sufficiently certain. The alleged deterioration in Cambodia cotton is at present under investigation. In general the high prices which have ruled for cotton until recently have led to the sowing with this crop of a much larger area than is warranted by a proper rotation. This is especially the case in the southern districts where cotton soils are shallow and cannot maintain their fertility if continuously cropped with cotton. In the same way the high prices for oil-seeds have led to a neglect of rotation in the case of ground-nuts. The scarcity of labour is being increasingly felt and in many districts there is keen competition between the local employers of labour and the labour emigration agents. The result of the wages census of August 1911 showed that wages both in kind and cash exhibited a tendency to rise in the rural tracts, although urban wages were generally stationary as compared with the figures of the census of 1908. Many petty ryots work as casual labourers during the busy season and it is impossible to draw a hard-and-fast line between the agricultural labourer and the small ryot. The average figures for the last few years show a steady increase in the area under garden crops, which are especially favoured by small cultivators as the initial outlay is small and individual industry is rapidly rewarded, while the area under dry grains has remained almost stationary. Even in the southern districts where Cambodia cotton might have been expected to oust crops like chillies and tobacco, the latter continue to show a steady increase. Both in the case of wet and dry lands more capital is being expended and increased attention is being paid to adequate manuring. The amount of green manure seeds sold by the Agricultural Department has increased largely, while the sale of artificial manures as a substitute for '*pati mannu*' in the

Kistna district has reached a stage when it is considered that the help of that department is no longer required. The co-operative movement continued to make steady progress, while the increasing volume of correspondence with private persons dealt with by the Agricultural Department shows clearly that many of the educated classes are now seeking to share in the general agricultural prosperity of the country.

POLITICAL PENSIONS. (1911.)

358. Political pensions in force on the 1st January 1911 were distributed among 584 pensioners and amounted to Rs. 3,14,131–12–0. The amount of pensions newly sanctioned or transferred from other provinces during the year was Rs. 6,773–13–0. Pensions amounting to Rs. 10,477–9–0 either lapsed or were transferred to other provinces or capitalized and paid off. Thirty-one pensioners died and six partly or wholly commuted their pensions. The pensions in force on the 1st January 1912 amounted to Rs. 3,10,428 and were distributed among 556 pensioners. The amount paid during the year to Carnatic stipendiaries was Rs. 2,36,265–9–3 and to members of the Tanjore family Rs. 37,727–11–6.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REALIZATION OF LAND REVENUE.

(FASLI 1320—1ST JULY 1910 TO 30TH JUNE 1911.)

[*Report on the Settlement of Land Revenue for fasli 1320.*]

Territorial Changes.

359. The principal territorial change carried out in the fasli was the creation, under G.O. No. 237, Public, dated 7th March 1911, of the new district of Chittoor with effect from 1st April 1911. The district comprises the taluks of Chittoor, Palmaner and Chandragiri transferred from the old North Arcot district, and of Madanapalle and Vayalpad transferred from Cuddapah. The districts of Cuddapah, Anantapur, North Arcot, South Arcot, Trichinopoly, Coimbatore and Salem, were also reconstituted during the fasli.

Peshkash.

360. The land revenue of the presidency is derived from (i) peshkash or revenue from permanently-settled estates, (ii) shrotriem jodi or quit-rent levied on inam villages, (iii) assessment, including water-rate, on lands held under the ryotwar system, and (iv) miscellaneous revenue. The total amount of peshkash payable during the fasli was Rs. 49,90,013 against Rs. 49,91,632 in the preceding year. The decrease of Rs. 1,619 is chiefly accounted for by the elimination of a sum of Rs. 1,200 representing the peshkash of previous faslis on certain estates in Bhadrāchalam and Nugur taluks which was included in the peshkash of fasli 1319.

Shrotriem jodi.

361. The quit-rent payable to Government on villages held on shrotriem or favourable tenure was Rs. 7,53,490 or Rs. 1,646 less than in the previous year. The decrease was due mainly to the redemption of quit-rent on enfranchised personal inams and to reductions of quit-rent consequent on the acquisition of land for public purposes.

Ryotwar and Miscellaneous.

362. The total extent of ryotwari holdings during the year, namely, 24·88 million acres, exceeded that of the preceding year by about 125,000 acres. The increase was contributed by all districts except Cuddapah, Trichinopoly and the Nilgiris, Trichinopoly alone showing a decrease of 6,970 acres. This decrease was due to deficiency of rain at the end of the north-east monsoon. There were large increases in Anantapur and Kurnool, due to a favourable season and consequent expansion of cultivation. The total assessment on holdings was Rs. 504·4 lakhs against Rs. 498·4 lakhs in the preceding year. More than half the increase occurred in Ganjām, Chingleput and Coimbatore, and was due mainly to the introduction of re-settlement rates in those districts. In other districts the increase in the revenue demand was due chiefly to the expansion of cultivation. There was however a large decrease in Cuddapah due to the revision of wet ayakats at re-settlement and the transfer of doravu well lands to dry. The total area cropped on ryotwari holdings was 20·12 million acres, being an increase of 680,247 acres or about 3 per cent. of the total holdings; while the area of 4·73 million acres under "waste charged" showed a decrease of 497,492 acres due to the generally favourable character of the season. Revenue from water-rate and the charge on second crop amounted to Rs. 32·50 lakhs against Rs. 29·63 lakhs, or nearly Rs. 2,87,000 more than in the preceding year. The increase occurred under both heads and was due chiefly to a favourable season. The apparent increase in the districts of Cuddapah and Kurnool was mainly due to the imposition of water-rate on lands transferred from wet to irrigable dry in the re-settled taluks of Cuddapah, and to the fact that the water-rate on lands irrigated by the Kurnool-Cuddapah canal in the Kurnool

district was for the first time shown under this head in the accounts under the sanction of the Government of India. There was a net decrease under remissions of Rs. 10·86 lakhs. Under the head "season remissions" there was a fall under the sub-head "waste remitted" of Rs. 2·36 lakhs, the largest remissions being in the districts of Nellore and Tinnevelly which alone received 60 per cent. of the total remission under this head. Under the sub-head "shavi or short crop" there was a net decrease of Rs. 5·74 lakhs. The decreases were due to the favourable character of the season and were marked in all districts except Tinnevelly which showed an increase due to deficiency of rain in the latter part of the north-east monsoon. "*Tirvakammi remission*" (*i.e.* the remission of the difference between wet and dry assessment on wet land cultivated with dry crops owing to insufficiency or failure of water) fell to Rs. 75,008 from Rs. 2·04 lakhs in the previous year. Sixty-four per cent. of the total remission under this sub-head was taken by the districts of Cuddapah, Anantapur and Tinnevelly. *Fixed remissions* or abatements of the demand granted for reasons unconnected with the season amounted to Rs. 4·42 lakhs or Rs. 1·72 lakhs less than in the preceding year. The largest item under this head was "increment remissions," that is, abatements allowed on the introduction of settlement or resettlement in cases where the increase over the old assessment is in excess of 25 per cent. These remissions amounted to Rs. 3·02 lakhs of which about Rs. 2·50 lakhs were granted in South Canara and Malabar. *Beriz deductions*, that is, deductions made from village collections in favour of inamdars and religious institutions amounted to Rs. 9·07 lakhs or about Rs. 0·56 lakh more than in the previous year. Remissions.

363. Miscellaneous revenue amounted to Rs. 87·24 lakhs or Rs. 0·37 lakh more than in the preceding year. The small increase was due to normal fluctuations in the contributions from the various districts. The charge under the heading "enhanced water-rate on lands irregularly irrigated" fell from Rs. 4·12 lakhs to Rs. 4·04 lakhs. The revenue from poramboke cultivation, including penal charge, amounted to Rs. 4·80 lakhs or Rs. 0·16 lakh less than in the previous year. Out of 126,652 acres of poramboke land occupied or cultivated, penal charges amounting to Rs. 3·17 lakhs were levied on 32,945 acres where the occupation was objectionable. The average rate of penal charge was Rs. 10 an acre. A reform in the terminology of village accounts has been prescribed which will make the distinction clear between genuine poramboke, reserved for State or communal purposes, and unassessed waste lands hitherto loosely termed porambokes on the assumption that they are uncultivable. Miscellaneous Revenue.

364. The total current demand under cesses amounted to Rs. 66,37,277 or an increase of Rs. 1,39,334. The land cess on permanently-settled estates rose from Rs. 13·36 lakhs to Rs. 14·04 lakhs owing to the increase of revenue under water-rate due to the favourable character of the season in the Nellore and Vizagapatam districts, and to enhanced rates of rentals adopted for calculating the cess in the Sivaganga zamindari in Rāmnād district. The land cess on whole inam villages was Rs. 3·83 lakhs as against Rs. 3·79 lakhs. The cess on ryotwar and miscellaneous rose from Rs. 47·82 lakhs to Rs. 48·49 lakhs following the increase in the revenue. Cesses.

365. The current demand under land revenue and cesses was Rs. 7,31,64,010; Rs. 7,18,25,902 or 98 per cent. were collected within the fasli and a sum of Rs. 555 was written off the accounts. The total arrear demand under all heads was Rs. 15,38,449 of which Rs. 14,45,020 or 93·8 per cent. were collected within the fasli and a sum of Rs. 31,102 or 2·02 per cent. was written off the accounts. The total balance, arrears and current, at the end of the fasli, including the balance under the Proprietary Estates Village Service Fund and the revenue from the Kurnool-Cuddapah canal was Rs. 15,49,311. Up to the end of November 1911, Rs. 13,30,866 or 85·9 per cent. had been collected, Rs. 9,193 written off the accounts and Rs. 295 ascertained to be irrecoverable. Collections.

366. A further decrease in the number of coercive processes issued occurred during the year, 1,716,316 processes having been issued against 1,811,263 in the preceding year. The decrease occurred in all kinds of processes except under sale notices in which there was a small increase. Demand notices, which are in the nature of reminders rather than coercive processes formed about 85·3 per cent. of the total number of processes and numbered 1,463,605 against 1,538,087 in the preceding year. The percentage of distraints and attachments to the total Coercive Processes.

number of demand notices was 9·99 in the case of personal property and 1·22 per cent. in the case of real property against 10·8 and 1·23 per cent. respectively in the preceding year. Nearly half the defaulters, whose property was attached, paid the arrear before the sale notices were issued and it was necessary to proceed to actual sale of property in only 2,747 cases out of 164,313 cases of attachment. The number of defaulters whose property was sold for arrears of revenue formed 0·07 per cent. of the total number of pattas held against 0·1 per cent. in the preceding year, and the extent of land actually sold, 10,313 acres, amounted to 0·04 per cent. of the total extent of holdings in the Presidency. In all, 3,400 acres, or 0·01 per cent. of the total holdings were bought in by Government for want of bidders against 3,256 acres or 0·01 per cent. of the holdings in the preceding year. Out of lands bought in during this and former years and remaining at the disposal of Government, the extent resold for occupation during the year was 1,395 acres against 2,612 acres in the preceding year. The amount of the sale-proceeds realised exceeded four times the assessment.

Loans and Advances.

367. The advances made under the Land Improvement Loans Act amounted to Rs. 2·74 lakhs and those under the Agriculturists' Loans Act to 3·30 lakhs. The aggregate amount advanced under both Acts fell from Rs. 6·51 lakhs to Rs. 6·04 lakhs. There was a marked increase in the districts of Trichinopoly, Madura, Coimbatore, Chingleput and Kistna, while the districts of Cuddapah, Anantapur, Guntūr and Bellary showed a large decrease, due generally to the favourable character of the season. It may also be expected that the demand for State loans will tend to decline in proportion to the development of co-operative societies. Of the advances made under the Land Improvement Loans Act Rs. 1,34,188, or about 49 per cent. were for sinking new wells; Rs. 58,989 were for repairing old wells; and Rs. 31,994 for the reclamation of land. Under the Agriculturists' Loans Act a sum of Rs. 3,12,554 or 94·7 per cent. was advanced for the purchase of cattle. Advances for the purchase of fodder and of seed-grain amounted to Rs. 3,995 and Rs. 1,331 respectively. The aggregate amount of principal and interest repayable during the year under both Acts was Rs. 10,09,296 of which a sum of Rs. 3,09,446 or 30·6 per cent. was collected without resort to coercive processes, and a sum of Rs. 5,26,530 or 52·1 per cent. after the issue of demands; a sum of Rs. 15,923 or 1·5 per cent. was realised after attachment but before sale, Rs. 122 by sale of moveable property and Rs. 749 by the sale of land. The balance outstanding at the end of the year was Rs. 1,56,514. Interest collected during the year amounted to Rs. 2,36,859 and after payment of interest due to the Government of India there was a net balance accruing to the Local Government of Rs. 75,849 against Rs. 60,091 in the preceding year.

Expenditure.

368. The charges of district administration including salaries of Revenue Inspectors, but excluding those of village establishments, were Rs. 54,70,990 or 7·5 per cent. of the land revenue and cesses realised against 7·3 per cent. in the preceding fasli. The village service charges, which are met from Provincial funds, amounted to Rs. 54,26,247. Including this sum the total charges were Rs. 1,98,97,237 or 14·9 per cent. of the collections of land revenue and cesses.

Transfers of Registration.

369. Transfers of revenue registration fall under the following three heads:—(i) transfers applied for through registration officers, (ii) transfers applied for direct to revenue officers, and (iii) transfers proposed *suo motu* by revenue officers. Under the first head 56,120 applications were received during the fasli against 50,581 in the preceding fasli. Under the second head the number fell from 316,107 to 91,170, a decrease of 71·15 per cent. mainly due to resettlement operations in the preceding year. Under the third head the number of cases fell from 38,414 to 17,412. The largest decrease (19,198) was in the district of Coimbatore where the cases disposed of by the special staff in the course of resettlement were eliminated from the statement.

Pattas.

370. Compared with the last quinquennial year, fasli 1315, there was an increase of nearly 10 per cent. in the number of pattas. The increase is to be attributed to expansion of cultivation and to a more accurate registry of the ownership of land in some of the districts resettled during the quinquennium.

SURVEYS. (1911–1912.)

[*G.O. No. 2802, Revenue, dated 18th September 1912.*]

Surveys.

371. The six parties working at the end of the preceding year continued their operations during the year, Party No. I in Ganjām and Kistna, No. II in Chittoor, No. III in Rāmnād and Anantapur, No. IV in Tinnevelly and Rāmnād and Nos. V and VI in North Arcot. Party No. I was almost exclusively employed on estate surveys. The work accomplished comprised the cadastral resurvey and revision survey (prior to resettlement), of 1,770·3 square miles of Government lands, the cadastral survey of 254·1 square miles of proprietary estates, and the cadastral survey of 10·15 square miles of Government lands. All the parties, except Party No. I, were also engaged in the survey of the streets in unions. The total outturn in cadastral survey was 2,034·55 square miles against 2,020·65 square miles in the preceding year. Deducting Rs. 2,44,335 recovered from proprietors of estates and Rs. 15,675 recovered by the central office under article 96, Civil Account Code, the net expenditure for the year was Rs. 6,73,546 as against Rs. 6,08,467 in the preceding year.

Outturn.

Cost.

Survey Parties.

372. No. I Party surveyed 216 square miles in the Parlākimedi estate including the "Savaripallis" and "temple villages," 14 square miles in Nandigam, 1 square mile in Jarada in Ganjām district and 8·4 square miles in the Golgonda taluk of the Vizagapatam district; and resurveyed the remaining 40 square miles of the Kolair lake villages in Kistna district. The party suffered much from malarial fever. No. II Party completed the revision survey of 215 square miles in Vayalpad and of 234 square miles in Madanapalle, and the initial survey of Dowlatpuram shrotriem, Cuddapah taluk, with an area of 0·6 square miles. No. III Party resurveyed 124 square miles and surveyed 2·2 square miles in the Sāttūr taluk in Rāmnād district and completed 210 square miles of revision survey in Anantapur district. No. IV Party resurveyed 86 square miles in Tinnevelly district and 233 square miles in Rāmnād district, and measured 12,226 sub-divisions in an area of 1,360 square miles. The party disposed of 3,822 land complaints and appeals during the year. No. V Party completed the revision survey of 407 square miles in North Arcot district, the initial survey of 6·3 square miles in Chingleput district, and the re-survey of 1·3 square miles in South Arcot district, besides preparing khandam sketches for an area of 677 square miles in North Arcot. No. VI Party completed the revision survey of 220 square miles in North Arcot district, the initial survey of 14 square miles in Coimbatore district and the initial survey of 1·75 miles in the Nilgiris. The share of the karnams in the various surveys amounted in the aggregate to 38 square miles, 20 square miles of this being in Rāmnād and Tinnevelly. Gazetted officers made 956 inspections and the number of inspections that disclosed bad work was 24 against 31 in the preceding year. The Director inspected the work of Parties Nos. I and IV twice, and of Nos. II, III and VI once during the year.

Karnams.

Inspections.

Maps.

373. The area of village maps printed during the year was 1,745 square miles as compared with 1,373 square miles in the preceding year. Proof copies were also supplied to Special Settlement Officers for an area of 255 square miles in Tinnevelly and Cuddapah and ferro-print copies for 478 square miles in Chingleput to meet urgent demands. Revised touring maps of 13 districts, revised taluk maps of 16 taluks, and a second impression of 3 taluk maps, were issued during the year. In the ferro-prussiate tracing and printing department 278 village maps containing 129,548 fields were traced. The outturn under fields traced and examined was reduced purposely, the printing section being unable to keep pace with the supply, and the men so freed were employed in tracing village maps out of stock in collectorates and records of measurement of municipalities.

Cost to Ryots.

374. The cost to landholders during the year in Chittoor, North Arcot, Rāmnād and Tinnevelly was As. 2–11, As. 3–4, As. 5–4 and As. 5–5 respectively, per acre. The increase of As. 0–9 in Rāmnād, as compared with the cost in the preceding year, was due to very high cooly rates prevalent in that locality.

SETTLEMENTS. (1911–1912.)

[*G.O. No. 2802, Revenue, dated 18th September 1912.*]

Parties.

375. All the five Settlement parties, which were at work at the end of the preceding year, continued their operations during 1911-1912, Party No. I in Chingleput and North Arcot, Party No. II in Coimbatore and Trichinopoly, Party No. III in Cuddapah, Chittoor and Anantapur, Party No. IV in Tinnevelly, Rāmnād and Madura, and Party No. V in Ganjām.

Districts.
Ganjām resettlement.

376. The compilation of the resettlement diglott registers of all the 343 villages of the Berhampur taluk in Ganjām was completed. The registers of 107 Telugu villages and of 190 Uriya villages were submitted to the Board of Revenue, and the Special Settlement Officer also submitted reports on the introduction of resettlement rates in the taluks of Chicacole and Berhampur as well as in the 33 villages of the Mohiri khandam. The classification of the unsettled villages of the Gumsur taluk was commenced in November 1911 and was completed towards the close of January 1912. The preliminary enquiry in connection with the resettlement of the previously settled tract of the same taluk was completed and the statistics required for a scheme report for the resettlement of this tract were compiled during the year. Proposals for the resettlement of the previously settled tract of the Goomsūr taluk and for the initial settlement of villages in that taluk as well as of the Chokkapad Khandam have also been submitted to Government. The Special Settlement Officer heard and disposed of 1,713 appeal petitions regarding registration presented by ryots.

North Arcot resettlement.

377. The records of 125 out of 130 new groups of villages in North Arcot were handed over to the Survey Department for check. Supplemental survey was completed in 98 villages. The special revenue staff completed its operations in 36 villages of the new Wallajah taluk and in 7 villages of the new Cheyar taluk. Work was also commenced in the remaining 78 villages of the Cheyar taluk and the records of 29 villages were handed over to the Survey Department. The special revenue inspectors also completed their work in all the villages of the Gudiyāttam taluk as well as in 148 out of 149 villages in the Vellore taluk. The records of all the villages of Gudiyāttam and of 134 villages of Vellore were handed over to the Survey Department before the close of the year.

Chingleput resettlement.

378. In the Saidapet taluk, objections to rough pattas in respect of the three cantonment villages were heard and disposed of during the year and the fair accounts of those villages were handed over to the Revenue Department. The bulk of the settlement staff was employed in the compilation of resettlement diglotts and the registers of 8 villages of the Saidapet taluk, of 188 villages of the Chingleput taluk including the portion of the shrotriem village of Tiruvadanai newly acquired by Government, of all the 354 villages of Madurāntakam, of 265 villages of Conjeeveram, and of 5 villages of Tiruvallūr were submitted to the Board of Revenue. The Special Settlement Officer also submitted his report on the introduction of the resettlement rates in the several taluks of the Chingleput district.

Cuddapah, Chittoor and Anantapur resettlement.

379. The manuscript diglott registers of the 37 villages of the Pulivendla taluk which were outstanding at the close of the preceding year, as well as those of Badvel and Sidhout, were compiled and submitted to the Board and the Special Settlement Officer submitted his reports on the introduction of resettlement rates in those taluks. The Special Assistant Settlement Officer heard objections to rough pattas in all the villages of the Pullampet taluk. Resettlement rates were completely introduced in that taluk and the fair accounts of 83 out of 88 villages were transmitted to the Revenue Department before the close of the year. In the Rāyachōti taluk, field inspection was completed by officers and objections to rough pattas were heard and disposed of in 56 out of 86 villages, and the fair accounts of 12 villages were handed over to the Revenue Department. In the Vayalpad taluk, the introduction of the new rates was ordered to be postponed to fasli 1322. The revision survey records of 72 villages in that taluk were received from the Survey Department before the close of the official year and the compilation of the accounts preliminary to field inspection was commenced in respect of a few villages.

380. In accordance with the orders of Government the initial settlement of the 3 hill villages of the Pachamalais and of the inam village of Olaiyur in the Trichinopoly taluk was entrusted to the Special Settlement Officer, No. II Party. The classification of the hill villages was completed by February 1912. Rough pattas were issued for the remaining villages of the Karūr and Palladam taluks and for the 218 villages of the Erode taluk. Objection petitions were disposed of from the ryots of Avanashi, Palladam, Karūr and Erode taluks. Fair resettlement accounts for all the villages in the Avanashi, Palladam, Satyamangalam, Karūr and Erode taluks were handed over to the Revenue Department. The resettlement diglott registers of 56 villages of the Bhavāni taluk, of 68 villages of Dhārāpuram, of 5 villages of Karūr, of 33 of Coimbatore and of 22 of Avanashi were submitted to the Board. The special revenue staff completed the revision of adangals in all the villages of the Karūr, Erode, Udamalpet and Pollachi taluks where this work was pending at the close of the preceding year and in 149 villages of Kollegal. Coimbatore and Trichinopoly resettlement.

381. The fair accounts of 11 villages of the Nāngunēri taluk were handed over to the Revenue Department and the Special Settlement Officer's report on the introduction of the new rates was submitted to Government. Rough pattas were issued for 158 villages and 18,617 objection petitions decided. The introduction of the new rates was completed in 4 taluks and fair resettlement accounts of 120 villages were furnished to the Revenue Department before the close of the year. About 452,000 palmyras were also counted during the year besides other fruit trees on porambokes and assessed wastes. The diglott registers of 123 villages were submitted to the Board. The special revenue staff completed the revision of adangals in the Sāttūr and Sankaranayinārkōyil taluks, in all the villages newly transferred to Srīvaikuntam, in 55 villages in Palni taluk and in those villages of the Kōvilpatti taluk in which the work was outstanding at the end of the preceding year. In the new Srīvilliputtūr taluk, enquiries into applications for transfer of pattas and preliminary field inspection were completed. Tinnevelly, Rāmnād and Madura resettlement.

382. In the course of the year 867 diglott registers were scrutinised in the Board's office, 563 were printed, and 475 were issued to Collectors. **Registers.**

383. The total expenditure of the department fell from Rs. 6,90,764 to Rs. 6,72,661. The expenditure on the five Settlement parties was Rs. 5,51,135, on the controlling office Rs. 1,04,653, and on the printing of registers Rs. 16,873. **Finance.**

LAND RECORDS. (1911–1912.)

[*G.O. No. 2802, Revenue, dated 18th September 1912.*]

384. Land Records staffs were employed in all the districts of the Presidency except Rāmnād. During the year a Land Records Tahsildar was newly posted to North Arcot and a Land Records Inspector to Chittoor. In the Coimbatore district as well as in the Karūr taluk of the Trichinopoly district, the Land Records staff was employed under the Special Settlement Officer. The establishments in Ganjām, Cuddapah, North Arcot and Chingleput were employed, partly in connection with survey or settlement and partly in connection with current maintenance and in attending to the preliminaries to regular maintenance. The Land Records Inspector of Chittoor was engaged in holding survey schools for karnams. In Vizagapatam, Kurnool and parts of Salem and Trichinopoly the Land Records staff was employed on current maintenance. In the remaining districts it was employed chiefly in attending to the operations preliminary to regular maintenance and, to a small extent, in connection with current maintenance. **Staff.**

385. Special operations preliminary to maintenance, which formed the bulk of the work done by the department during the year, comprised (i) the preparation of demarcation sketches and stone registers, the opening of stone depots and the demarcation of sub-divisions; (ii) the scrutiny and completion of field maps; and (iii) the disposal of remeasurement cases and the final correction of field maps. During the year the preparation of demarcation sketches and stone registers was commenced in Ganjām, while it was completed in Kurnool. Satisfactory progress was made in preparing demarcation sketches and stone registers in Ganjām and Chingleput and in the writing of sub-division stone registers in Bellary, Cuddapah, Chingleput and South Arcot. Very little work was done in North Arcot, Tanjore **Operations preliminary to maintenance.** Demarcation sketches.

and the Nilgiris. Good work was done in opening stone depots in Cuddapah, Tanjore and Tinnevelly, but the number of depots was still inadequate in these three districts as well as in Kurnool and Salem. No depots were opened in Ganjām and Chingleput. The progress made in demarcating sub-divisions was satisfactory or fair in Gōdāvari, Kistna, Anantapur, Bellary, South Canara and the Nilgiris. The demarcation of railway sub-divisions was completed in South Canara. Proposals to restrict the extent of sub-division demarcation in Malabar were approved during the year. There were very few applications for the demarcation of private holdings. The difficulty of remeasurement depends on the nature of the original survey and progress varied in different taluks of the same district surveyed on different systems, but on the whole good results were shown in Gōdāvari, Kistna, Guntūr, Bellary, Anantapur, Nellore, Tanjore and the Nilgiris both in remeasurement and in the final correction of field maps.

Stone depots. Demarcation of sub-divisions.

Remeasurement.

Current maintenance.

386. The work of current maintenance was concerned with the training and equipment of staff, the repair and renewal of survey marks, and the mapping of sub-divisions. Survey schools for the training of revenue subordinates and karnams were held in almost all the districts. In districts where operations preliminary to regular maintenance were in progress, repairs and renewals were effected only to the extent found necessary in the course of remeasurement or current sub-division work. The number of renewals and repairs was satisfactory in the districts of Kurnool, Tinnevelly and North Arcot (Tiruppattūr taluk), and in the districts of Vizagapatam, Kurnool, North Arcot, Tanjore and Tinnevelly ryots began to realize their responsibility with regard to the maintenance of survey marks. Coercive processes were usually unnecessary for the recovery of the cost of renewals and repairs carried out by the Land Records staff, but in the Nilgiris considerable difficulty was felt in recovering the amounts from ryots. The mapping of sub-divisions was in arrears in all districts excepting Ganjām, Vizagapatam, Gōdāvari, Guntūr, Kurnool, Bellary and the Nilgiris.

Miscellaneous.

387. Almost all the great trigonometrical survey stations in the several districts were found to be in good condition and necessary action was taken in respect of such stations as were in need of repair. The village and taluk accounts in those districts from which reports were received were found in general to have been fairly well maintained and the mistakes discovered by jamabandi officers were not of a serious nature. Statistical registers and firka books were not completed up to fasli 1320 in some districts.

WASTE LANDS.

(Fasli 1320—1st July 1910 to 30th June 1911.)

388. The total area of the Presidency according to the statement for fasli 1320, which shows the classification of area and the manner in which it was utilised, was 88,869,763 acres against 89,010,905 acres in fasli 1319. Of this 13,606,994 acres were classed as forest land and 23,739,313 acres as land not available for cultivation; 9,318,933 acres were classed as cultivable waste, while 8,452,710 acres were current fallows. The extent actually cultivated was 33,751,813 acres as against 32,217,353 acres in the preceding fasli. Of the area cultivated 9,922,954 acres were irrigated, and 4,450,572 acres were cropped more than once.

GOVERNMENT ESTATES.

389. There is nothing to record under this head in the Madras Presidency.

WARDS' ESTATES.

(FASLI 1320.)

[*Report on the Administration of the Estates under the Court of Wards in the Madras Presidency for fasli 1320 (1910–1911).*]

Number of Estates.

390. There were 22 estates under the management of the Court of Wards on the 1st July 1910. Of this number, Kondamodalu, Telaprolu, Komaramangalam, Kavalappara and Punnattur were handed over to their proprietors who attained majority during the year. The estate of the ex-Zamindar of Parlākimedi, who died during the year, was managed as a separate estate till the end of the year when it was merged with the Parlākimedi estate. The Zamindar of the Kangundi estate in the North Arcot district died in July 1910, and his only son and heir being a minor, the estate was taken under the Court's superintendence. The Court also undertook, on the zamindar's own application, the management of the Kadavur estate in the district of Trichinopoly. There were thus 19 estates in the hands of the Court of Wards at the end of the year.

Estates restored.

391. The *Kondamodalu* estate, after being under the Court's management for 10 years and 7 months, was restored to the zamindar with a revenue demand of Rs. 7,294 as against Rs. 3,716 when the estate first came under the Court's control. The condition of the tenants improved, waste land was brought under cultivation, rents were reduced and no coercive processes were necessary for their collection. There was a balance of Rs. 2,558 in cash and Rs. 1,000 in Government promissory-notes. There was no balance when the estate was first taken under management. In *Telaprolu*, which was under the Court for 20 years and 2 months, there was an increase of 6 per cent. in the demand and the cash balance at the rendition of the estate was Rs. 12,13,605 against Rs. 26,305 when the control of the estate was assumed. Debts amounting to Rs. 3·58 lakhs were realised and debts amounting to Rs. 94,771 were paid. A sum of Rs. 3·01 lakhs was spent on irrigation and other improvements. The revenue demand of the *Komaramangalam* estate, which was under the Court for 9 years and 11 months, rose during that period from Rs. 60,572 to Rs. 90,118, and a sum of Rs. 28,937 was spent on irrigation and other improvements. The balance in hand increased from Rs. 756 to Rs. 74,767. The *Kavalappara* estate was under the Court's management for 38 years, and in that period its income increased by 3,000 parahs of paddy valued at Rs. 1,500 and by Rs. 5,652 in cash. A sum of Rs. 1,69,212 was spent on improvements to buildings and Rs. 1,82,504 on the preparation of land registers, education of the wards and marriage ceremonies, etc. The balance on hand when the estate was restored was Rs. 33,438 against Rs. 10 at the assumption of management. The revenue demand of the *Punnattur* estate, which was under management for 18 years and 11 months, rose from Rs. 10,412 to Rs. 23,087. A sum of Rs. 41,292 was spent on improvements and the balance in hand rose from Rs. 100 to Rs. 19,458.

Finance.

392. The total cash receipts of all the estates during the fasli were Rs. 43,55,625, and the total assets, including the opening balance, were Rs. 49,48,425. The expenditure in the year was Rs. 41,94,899. The cash balance at the close of the fasli was thus Rs. 7,53,526. Government securities and Port Trust debentures of the aggregate face value of Rs. 53,18,600 were held on behalf of some of the estates and the estimated value of grain on hand at the close of the year was Rs. 39,189 bringing the total balance to the credit of the estates on the 30th June 1911 to Rs. 61,11,315. Deducting extraordinary items the ordinary receipts and charges of the year amounted to Rs. 2,794,784 and Rs. 21,17,128 respectively compared with Rs. 33,25,270 and Rs. 27,30,973 in the preceding year. The variation is due to the rendition of five estates and the assumption of management of two new estates during the year.

Surplus Balances.

393. Leaving out of account those estates in which the balances are required either to pay off debts or to meet current charges, the surplus balances at the end of the fasli exceeded Rs. 20,000 in eight estates. The chief of these were the Parlākimedi ex-Zamindar's estate with Rs. 26·14 lakhs, the Parlākimedi estate with Rs. 20·16 lakhs, the South Vallūru estate with Rs. 4·96 lakhs and Subramania Sastri's estate with Rs. 1·04 lakhs. In the Parlākimedi estate a cadastral survey is now in progress; the investigation and restoration of irrigation sources in the estate are being carried on by a party in charge of a Special Engineer lent by Government;

the estate roads are being repaired and additions are being made to the palace. Two villages belonging to the zamindar of Budarasingi have been purchased on behalf of the Parlākimedi ex-Zamindar's estate for a sum of Rs. 60,000. Proposals for the utilisation of the surplus in the South Valluru estate are under the Court's consideration. In Subramania Sastri's estate the local officers are waiting for a favourable opportunity to invest the surplus in the purchase of landed property.

Agricultural Improvements.

394. There were only two home farms in wards' estates during the year in Parlākimedi and South Vallūru. The Parlākimedi home farm worked at a loss of Rs. 974; but the home farm at South Valluru worked at a profit of Rs. 390. As one of the two remaining farms will pass out of the superintendence of the Court next year, the office of Agricultural Expert to the Court has been terminated with effect from the 16th April 1912.

Establishment Charges.

395. The average percentage of establishment charges and Government commission to normal receipts was 14·6 against 13·3 in the preceding year. The percentage exceeded 15 in seven estates, but it is not practicable to reduce the charges in any of these estates without sacrificing efficiency.

Works.

396. The outlay on ayan maramat works was 15·2 per cent. of the total ordinary expenditure during the year. The percentage was 13·8 in the preceding year. Of the total allotment for repairs and improvements 70·2 per cent. was expended, or 78·5 per cent. if the value of work done but not paid for is included. Sums of Rs. 1·23 lakhs were spent on irrigation works, Rs. 1·44 lakhs on buildings and Rs. 27,081 on communications.

Debts due to the Estates.

397. The debts due to the several estates under management at the beginning of the fasli amounted to Rs. 4,99,857. Including loans newly granted, loans newly brought to account, and interest which accrued during the year, the total sum due was Rs. 6,20,455, of which Rs. 1,50,126 were collected and Rs. 24,490 written off, leaving a balance of Rs. 4,45,839 distributed among twelve estates.

Debts due by the Estates.

398. The liabilities of the several estates at the beginning of the fasli amounted to Rs. 14,11,635, exclusive of two debenture loans amounting to £212,500 repayable in fixed annual instalments from the income of the *Kallikota* and *Atagada* estates. A sum of Rs. 5,80,000 was borrowed from the Telaprolu estate at 5 per cent. to pay off the debts due by the Vuyyūru estate. Debts and claims newly brought to account and interest which accrued during the year brought the total liabilities to Rs. 23,87,809, of which Rs. 8,23,800 were repaid, and Rs. 85,050 struck off, leaving a balance of Rs. 15,05,950 due by eight estates at the end of the year. The debts exceeded Rs. 50,000 in six estates.

Education of Wards.

399. The minors of eight estates continued to be under the care of the Court's European tutor at Newington. The son of the zamindar of Udaiyārpālaiyam was admitted into the institution at the request of his father. The Komaramangalam zamindar who attained his majority on the 9th September 1910 was allowed to remain at Newington till he completed his studies for the B.A. degree examination which he successfully passed. The conduct of all the wards at Newington was quite satisfactory, and all took regular part in athletic exercises. In the cold weather six of the wards made a tour to Ceylon, stopping *en route* at Tinnevelly, Rāmēsvaram and Trichinopoly.

Encumbered Estates.

400. The only estates to which the provisions of section 45 of Madras Act I of 1902 have been applied continued to be Uttumalai and Chundi. In *Uttumalai* debts amounting to Rs. 53,900 were paid and debts to the extent of Rs. 41,925 were struck off the accounts. The Estate Collector is taking necessary steps to discharge the debts still remaining. The suit filed by the heirs of Sakharam Sahib is pending. In *Chundi* debts, interest and costs amounting to Rs. 9,353 were brought to account during the year. Excluding the debt due to the Parlākimedi estate, which is being paid by half-yearly instalments, the estate owed Rs. 10,097 at the end of the fasli. Of this, Rs. 6,272 have to be paid after the discharge of all other claims notified under section 37 or admitted under section 38 of Act I of 1902.

Miscellaneous.

401. The Parlākimedi Raja's College, including the High School and the Primary department, worked satisfactorily during the year. The suggestions made by the University Commission have already been brought into effect. The new laboratory is in rapid progress. The school supported by the Sivaganga estate continued to do useful work. The Parlākimedi Light Railway worked at a profit of Rs. 5,525

during the year. The Parlākimedi and Saptur forests were worked under the rules sanctioned by Government under sections 26 and 32 of the Forest Act and Government have sanctioned the application of rules under section 26 to the Vuyyūru, Chundi and Kadavur estates. The Forest Settlement Officer employed for the Parlākimedi estate continued till 30th June 1911. He completed the settlement work of eighteen blocks of the estate and left the remaining three blocks to be completed by the Revenue Divisional Officer, Chicacole. The survey of the Parlākimedi estate by a Government party is in progress. A special survey staff is attending to the maintenance of the survey records and works in the Saptur estate and steps are being taken for a survey and the preparation of a record-of-rights in South Vallūru estate.

REVENUE AND RENT-PAYING CLASSES.

(Fasli 1320—1st July 1910 to 30th June 1911.)

Revenue-paying Classes.

402. The land revenue of the Presidency is derived from the following sources: peshkash or revenue paid by holders of permanently-settled estates; shrotriem jodi, or quit-rent levied on inam villages; assessment levied on lands held under the ryotwari system, including water-rate; and miscellaneous revenue, which includes quit-rent or minor inams. The total approximate area of permanently-settled estates for fasli 1320 was 19·08 million acres and the peshkash payable amounted to Rs. 49,90,013. The quit-rent payable on shrotriem villages was Rs. 7,53,490. The total extent of ryotwari holdings was 24·88 million acres and the total assessment was Rs. 504·4 lakhs. Miscellaneous revenue amounted in the aggregate to Rs. 87·24 lakhs.

Ryotwari.

403. The number of ryotwari villages fell from 23,036 to 22,763, the decrease being mainly due to the amalgamation of some villages with others. Of the 24·88 million acres of ryotwari holdings the total area cropped amounted to 21·40 million acres against 20·76 million acres in the preceding fasli. The total number of pattas held during the fasli amounted to 3,859,407, an increase of nearly 10 per cent. over the number in the quinquennium ending with fasli 1315. The bulk of the increase under both single and joint pattas was confined to pattas paying Rs. 10 and less a year, which amounted to about 70 per cent. of the total increase. More than two-thirds of the total number of pattas were assessed at Rs. 10 and less.

Rent-paying Classes.

404. The rent-paying classes consist partly of tenants on permanently-settled estates and partly of sub-tenants of lands held on ryotwari tenure. Sub-letting is usually chiefly resorted to by the non-agricultural classes. It is most prevalent in the delta districts and wherever the value of land is high, and is reported to be on the increase in Ganjām, Kistna and Guntūr. In Nellore and Bellary the tendency appears to be rather against sub-letting, probably owing to the backward condition of these districts and the prevalence of plague in the latter.

Zamindaris.

405. The relations between landlords and tenants in the larger zamindaris were on the whole fairly satisfactory. In some parts of the Ganjām district these relations were to some degree strained owing to a general desire among ryots to substitute money for grain rents, while there seems to have been some tension of feeling owing to various causes in the districts of Kistna, Nellore, Chittoor, Trichinopoly, Madura and Rāmnād. Suits under Act I of 1908 multiplied in the Chingleput district, and in Chittoor the relationship between the landlords and tenants was again far from amicable. The landlords in that district are in the majority of cases mortgagees and since they have little interest in the welfare of the estate no other result can be expected.

CHAPTER III.

PROTECTION.

LEGISLATING AUTHORITY.

The Legislative Council.

24 & 25 Vic., c. 67.
55 & 56 Vic., c. 14.
9 Edw. 7, c. 4.
Section 29 of the Indian Councils Act, 1861.
Section 1 of the Indian Councils Act, 1892.

406. The Legislative Councils in India were constituted under the Indian Councils Act, 1861, and enlarged by the Indian Councils Act, 1892, and the Indian Councils Act, 1909. The statute of 1861 prescribed that the Council of the Governor of Fort St. George for the purpose of making Laws and Regulations should be composed of the Ordinary Members of the Governor's Council, and a number of Additional Members, including the Advocate-General, to be nominated by the Governor, provided that the number so nominated should be not less than four nor more than eight in addition to the Advocate-General, and that not less than half of the additional members should be non-official persons. By the statute of 1892 the minimum and the maximum numbers of additional members were raised to eight and twenty, respectively, in addition to the Advocate-General, and the Governor was empowered to nominate all of them subject to regulations framed by the Governor-General in Council with the approval of the Secretary of State in Council. Under these regulations the maximum number of official additional members, excluding the Advocate-General, was fixed at nine; seven non-official members were nominated respectively on the recommendation of (1) the commissioners of the Corporation of Madras, (2) the northern and (3) southern groups of district municipalities, (4) the northern and (5) southern groups of district boards, (6) the Madras Chamber of Commerce and (7) the Senate of the University of Madras; the other non-official members were nominated in such a manner as to secure a fair representation of the different classes of the community: one seat being ordinarily reserved for a *zamindar* paying not less than Rs. 20,000 as *peshkash* annually to Government. The statute of 1909 further enhanced the maximum number of additional members to fifty and directed that they should be partly nominated by the Governor and partly elected. The number of members to be nominated or elected, and the conditions and methods of nominations and election, the term of office and other minor questions were relegated to subsidiary regulations framed by the Governor-General. The Regulations applicable to the Madras Presidency, as amended in 1912, provide for 42 additional members, excluding the Advocate-General, of whom 21 are to be elected and 21 nominated. The twenty-one elected members are chosen by the following constituencies:—

Section 1 of the Indian Councils Act, 1909.
Ibid.
9 Edw. 7, c. 4. Also section 6.

Regulation I.

(i)	The Corporation of Madras	1 member.
(ii)	The University of Madras	1 „
(iii)	Municipal councils and district and taluk boards	9 members.
(iv)	Zamindars	2 „
(v)	Landholders other than zamindars	3 „
(vi)	The Muhammadan community	2 „
(vii)	The Madras Chamber of Commerce	1 member.
(viii)	The Madras Trades' Association	1 „
(ix)	The Planting community	1 „

Of the 21 nominated members, not more than 16 may be officials and one must be a non-official member selected from the Indian commercial community. In addition to these 42 additional members and the Advocate-General, two experts, either official or non-official, may also be nominated when necessary, subject to the condition that the total number of official members shall in no circumstances constitute a majority of the council. The following general conditions regulate the eligibility of candidates for election:—

Regulation IV.

No person shall be eligible for election as a member of the Council, if such person—

(*a*) is an official, or
(*b*) is not a British subject, or

(*c*) is a female, or

(*d*) has been adjudged by a competent court to be of unsound mind, or

(*e*) is under twenty-five years of age, or

(*f*) is an uncertificated bankrupt or an undischarged insolvent, or

(*g*) has been dismissed from the Government service, or

(*h*) has been sentenced by a criminal court to imprisonment for an offence punishable with imprisonment for a term exceeding six months, or to transportation, or has been ordered to find security for good behaviour under the Code of Criminal Procedure, such sentence or order not having subsequently been reversed or remitted, or the offender pardoned, or

(*i*) has been debarred from practising as a legal practitioner by order of any competent authority, or

(*j*) has been declared by the Governor in Council to be of such reputation and antecedents that his election would, in the opinion of the Governor in Council, be contrary to the public interest:

Provided that in the last four cases the disqualification may be removed by an order of the Governor in Council in this behalf. Every candidate must also possess the qualifications as to residence, property and other matters prescribed in the special rules applying to the electorate by which he seeks election. Disputes as to the validity of an election are settled by the Governor in Council whose decision in regard to the intention, construction or application of the regulations is final. Every additional member is required to take an oath or the affirmation of allegiance to the Crown before assuming his seat in the council. The term of office is ordinarily three years from the date of nomination or election but a member appointed to fill a casual vacancy holds office only for the unexpired portion of the original member's three-year period. Acceptance of an appointment under the Crown automatically renders the seat of a non-official member vacant; the Governor is required to declare a seat vacant if the holder fails to take the oath or affirmation of allegiance within a reasonable period, or subsequent to his appointment becomes subject to the more important of the disabilities enumerated above as disqualifying candidates for election. The Governor has also power to remove any member who is absent from India or unable to attend to the duties of his office for a period of two consecutive months. At meetings of the council the Governor, or in his absence the Vice-President appointed by him, presides and in that capacity has a casting-vote. Ten members in addition to the presiding officer form a quorum for the transaction of business.

Regulation III.
Regulations XVI and XVII.
Regulation VII.
Regulation X.
Section 29 of Indian Councils Act, 1861.
Regulation VIII.
Section 4 of the Indian Councils Act, 1892.
Section 4 of the Indian Councils Act, 1909.

Powers of the Legislative Council.

407. The Council is empowered to make laws and regulations for the peace and good government of the whole Presidency and for that purpose may repeal or amend any law or regulation made prior to 1861 by any authority in India in so far as it is applicable to this Presidency; with the previous sanction of the Governor-General, it may also repeal or amend as to this Presidency any law or regulation made at any time by any other authority in India, but no alteration of any Act of Parliament may be effected. No measure affecting the public revenues or imposing any charge on them may be introduced without the previous sanction of the Governor; and the previous sanction of the Governor-General is prescribed with respect to all laws and regulations—

24 and 25 Vic., c. 67.
55 and 56 Vic., c. 14.
Section 42 of the Indian Councils Act, 1861.
Section 5 of the Indian Councils Act, 1892.
Section 43 of the Indian Councils Act, 1861.

(1) affecting the public debt of India, or the customs duties, or any other tax or duty now in force and imposed by the authority of the Government of India for the general purposes of that Government;

(2) regulating any of the current coin, or the issue of any bills, notes, or other paper of currency;

(3) regulating the conveyance of letters by the post office or messages by the electric telegraph within the Presidency;

(4) altering in any way the Indian Penal Code (India Act XLV of 1860);

(5) affecting the religion or religious rites and usages of any class of His Majesty's subjects in India;

(6) affecting the discipline or maintenance of any part of His Majesty's military or naval forces;

(7) regulating patents or copyright; or

(8) affecting the relations of Government with foreign princes or states.

Sections 40 and 41 of the Indian Councils Act, 1861.

408. No law or regulation passed by the Legislative Council is valid until both the Governor and the Governor-General have assented to it and such assent has been formally published. Any such law or regulation may be disallowed by the Crown, but if it is disallowed, it becomes null and void only from or after the day on which the Governor makes known by proclamation or by signification to the Council that he has received notification of the disallowance.

Meetings of the Legislative Council.

Section 37 of the Indian Councils Act, 1861.
Section 5 of the Indian Councils Act, 1909.

409. The ordinary rules for the conduct of business in the Legislative Council as originally framed by the Governor, subject to the sanction of the Governor-General in Council, may be amended by the Council itself subject to the assent of the Governor, but the Governor-General in Council has power to disallow any such rules. The special rules relating to the discussion of the annual financial statement, to discussion of matters of general public interest and to the asking of questions are made by the Governor in Council subject to the sanction of the Governor-General in Council and may not be altered or amended by the Council.* The times and places of meetings are fixed by the Governor and the Secretary notifies the same in the *Fort St. George Gazette* and to each member by letter. Any member may at a meeting of the Council, apply for leave to introduce a bill. As soon as such leave is granted, he is required to send a copy of the bill with connected papers and a statement of the objects and reasons for the proposed measure to the Secretary to the Council who causes them to be printed and furnished to all the members. The bill and the statement of objects and reasons are published in the official gazette in English and in such vernacular languages as the Governor directs. Fifteen clear days must intervene between publication and introduction. When a bill is introduced, the principle of the bill and its general provisions may be discussed and if necessary, it may be referred to a Select Committee for report. Reports of Select Committees must, unless the committee otherwise directs, be published in the official gazette in the languages in which the original bill was published and copies are distributed to the members before a measure is brought up for final consideration.

Financial Statement, matters of general public interest and questions.

Section 2 of the Indian Councils Act, 1892.
Section 5 of the Indian Councils Act, 1909.

410. While the Indian Councils Act, 1861, restricted the business of the Legislative Councils to the discussion of bills and the passing of Acts, the Indian Councils Act, 1892, extended their functions and authorized them also to discuss the annual financial statement of the Province and to ask questions subject to certain reservations. The Indian Councils Act, 1909, further authorizes the consideration of resolutions on matters of general public interest and the rules framed under the same statute for the discussion of the annual financial statement also confer on the Council enhanced power to examine the details of the Provincial budget. This examination is carried out by a Finance Committee consisting of 12 members, of whom not more than six are nominated and at least six are elected by the non-official members. The committee consider the draft financial statement and may make recommendations to Government. The statement is then revised, if necessary, and discussed at a meeting of the Legislative Council at which resolutions may be brought forward by the members, provided that no discussion shall be permitted in regard to any of the following subjects, namely :—

(*a*) any subject removed from the cognizance of the Legislative Council of the Governor by section 43 of the Indian Councils Act, 1861 ;

(*b*) any matter affecting the relations of His Majesty's Government, or of the Governor-General in Council, or of the Governor in Council with any Foreign State or any Native State in India, or relating to the internal affairs of any such Native State;

(*c*) except with the sanction of the Governor, any matter which is the subject of discussion between the Governor-General in Council or the Secretary of State and the Local Government; or

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* Under the Indian Councils Act, 1861, 1892 and 1909, the following rules have the force of law in this Presidency :—

(1) Regulations for the nomination and election of additional members of the Legislative Council published in the Notification of the Government of India, Legislative Department, No. 15, dated 15th November 1909.

(2) Rules for the conduct of business at meetings of the Legislative Council, passed at the meeting held on the 14th November 1893 and amended on the 18th December 1893, 7th March 1894, 9th December 1896, 5th April 1910, 4th April 1911 and 13th March 1912.

(3) Rules for the discussion of matters of general public interest in the Legislative Council published in the Notification of the Government of Madras, Legislative Department, No. 21, dated 30th November 1909.

(4) Rules for the asking of questions in the Legislative Council published in the Notification of the Government of Madras, Legislative Department, No. 22, dated 30th November 1909.

(5) Rules for the discussion of the annual financial statement in the Legislative Council published in the Notification of the Government of Madras, Legislative Department, No. 36, dated 31st December 1909.

(*d*) any matter under adjudication by a Court of Law having jurisdiction in any part of His Majesty's dominions.

411. No resolution shall be moved which does not comply with the following conditions, namely :— Resolutions.

(*a*) it shall be in the form of a specific recommendation addressed to the Governor in Council;

(*b*) it shall be clearly and precisely expressed and shall raise a definite issue;

(*c*) it shall not contain arguments, inferences, ironical expressions or defamatory statements, nor shall it refer to the conduct or character of any person except in his official or public capacity;

(*d*) it shall not challenge the accuracy of the figures of the revised financial statement;

(*e*) it shall be directly relevant to some entry in the revised financial statement;

(*f*) it shall not criticise any decision of the Government of India in respect of Provincial finance; and

(*g*) if it would in itself have the effect of causing the total expenditure of the Presidency to exceed the amount sanctioned by the Government of India, it must propose some counterbalancing reduction in the estimate so as to avoid such excess.

Resolutions may also be disallowed on the ground that they cannot be moved consistently with public interests or that they should be moved in the Legislative Council of the Governor-General. The revised financial statement as amended with reference to any resolutions passed in regard thereto and approved by the Government of India forms the budget and this is further discussed at a later date. It is not subject to the vote of the Council and members cannot move any resolution in regard to it, but they may offer any observations they may wish to make, the discussion being limited to those branches of revenue and expenditure subject to the control of the Local Government. Any criticism of Imperial finance is forbidden. Resolutions as to matters of general public interest are, in respect to their form and subject-matter, liable to the same restrictions as resolutions relating to the revised financial statement and like the latter have merely the effect of recommendations to the Governor in Council. When a resolution has been discussed at a meeting of the Council or has been disallowed or withdrawn, no resolution raising substantially the same question shall be moved within one year. In respect of interpellations it is laid down that no questions shall be permitted in regard to any matter affecting the relations of His Majesty's Government, or of the Governor-General in Council, or of the Governor in Council with any Foreign State or any Native State in India, or relating to the internal affairs of any such Native State, or any matter under adjudication by a Court of Law having jurisdiction in any part of His Majesty's dominions. The President may disallow a question if it cannot be answered consistently with public interests or is one that should be put in the Council of another Local Government or of the Governor-General. Questions must also be so framed as to be merely a request for information, and they must not be of excessive length or contain arguments, inferences, ironical expressions, or defamatory statements, or refer to the conduct or character of persons except in their official or public capacity or ask for an expression of an opinion or the solution of a hypothetical proposition. In matters which are, or have been, the subject of controversy between the Governor-General in Council or the Secretary of State and the Local Government no question may be asked except as to matters of fact, and the answer must be confined to a statement of facts. No discussion is permitted in respect of a question or of an answer given to a question; but a member is allowed the privilege of putting supplementary questions which are subject to the same restrictions as the original questions. Questions.

COURSE OF LEGISLATION. (1911–1912.)

412. Twelve official members resigned during the year, six as they were proceeding on leave out of India, two on account of their retirement from service and the rest on the return from leave of the officers in whose place they were Legislative Council.

appointed as members. Another official vacancy arose by the elevation to the Executive Council of the Advocate-General, the Hon'ble Mr. P. S. Sivaswami Aiyar. All these vacancies, with the exception of one to which a non-official member was nominated, were filled up by officials. Two vacancies among the non-official members occurred during the year, of which one was caused by the resignation of the representative of the Madras Chamber of Commerce and the other by the resignation of the acting Chairman of the Madras Port Trust Board. These vacancies were duly filled. Including three adjourned meetings seven meetings of the Council were held during the year. The average attendance of additional members during the year was 38 (16 officials and 22 non-officials).

Acts.

413. The following Acts were passed during the year :—

The Madras Equitable Assurance Society's (Amendment) Act, 1911.

This Act enables the members of the Madras Equitable Assurance Society to deal with their own property.

The Limited Proprietors Act, 1911.

This measure places mortgagees, lessees and other persons having limited or temporary interests in estates in the position of proprietors for the purposes of the Madras Proprietary Estates Village-service Act, 1894, the Madras Hereditary Village-offices Act, 1895, and the Madras Survey and Boundaries Act, 1897.

The Madras Hackney Carriage Act, 1911.

This repeals and re-enacts the law relating to hackney carriages as embodied in the Madras Hackney Carriage Act, 1879, which was found to require amendment.

Government of India.

414. No draft bills were submitted by the Local Government to the Government of India during the year for introduction in the Legislative Council of the Governor-General.

POLICE. (1911.)

[*Report on the Administration of the Police of the Madras Presidency for the year 1911 ; Statistics of British India, Part VI, Administrative and Judicial—Police.*]

Changes in the Police Force.

415. The sanctioned strength of the permanent force at the close of the year was 32,365, or 158 in excess of the number on the corresponding date of the preceding year. The most important changes sanctioned during the year were (i) the constitution of an armed reserve at Vellore for the new North Arcot district, (ii) the additions made to the force in Tinnevelly district owing to the revision of the reallocation scheme sanctioned for that district, and (iii) the reduction sanctioned both in the case of the training staff and the number of cadets under training in the Provincial Training School at Vellore. Continued difficulty was felt in recruitment and there were 2,318 vacancies in the ranks at the close of the year. The number of vacancies has, however, fallen from 2,643 to the present figure during the year, and since the sanctioned strength of the force was suddenly raised by 6,000 in 1909 in consequence of the Police Commission's reforms the large additional number can only be recruited slowly. There was no change of Superintendents in 17 districts, and the number of sub-divisions left temporarily without a separate officer in charge was 8 and in only one case did the period exceed 1 month. In 14 districts Superintendents had the services of personal assistants. Mr. D. W. G. Cowie, I.C.S., held charge of the department from the opening of the year till the 22nd April when he proceeded on long leave, and again from the 16th November to the close of the year, Mr. H. Douglas Robertson, Deputy Inspector-General, Southern Range, acting in the meanwhile. Mr. P. B. Thomas remained in charge of the Criminal Investigation Department during the year. The creation of the new district of Chittoor involved the creation of a new police district.

Discipline.

416. The percentage of men punished departmentally for all offences (including absence without leave, which is one of the most frequent offences) rose from 41·0 to 42·4, while the total number of dismissals for all offences fell from 503 to

458. The number of suspensions increased from 665 to 750. Two hundred and seventy-three members of the permanent force were judicially punished during the year, of whom 3 officers and 178 men were convicted of offences committed in their official capacity, the majority of the convictions being, as usual, under the Police Act. There were only 4 convictions for extortion, none of which were of a very grave character. During the year the King's Police Medal was awarded to Mr. F. Fawcett (late Deputy Inspector-General of Police of this Presidency) and to 7 members of the Madras Police. The titles of Rao Bahadur, Khan Sahib and Rao Sahib were conferred on 4 recipients and a total amount of Rs. 12,810 was disbursed in monetary rewards. **Rewards.**

417. The proportion of illiterate constables in the permanent force was 12·0 per cent. as against 11·7 in 1910. Though enlistment is generally restricted to literates, it was found necessary to recruit illiterate men in the hill tracts and for the armed reserves in a few districts. In North Malabar and the Trichinopoly Railway Police there were no illiterate men. At the commencement of the year 3 probationary Assistant Superintendents, 12 probationary Inspectors, and 201 probationary Sub-Inspectors, besides 3 Sub-Inspectors of Madras City, 1 of Pudukkōttai State and 2 of the province of Coorg and 2 Sergeants were under training at the School at Vellore. At the final examination held in April 1911, 97 passed with 10 in the first class out of 107 candidates, and 82 out of 95 were successful in the October examination, 41 securing a first class. The two Central Recruits' Schools at Vellore and Vizianagram turned out 1,031 trained men during the year. Recruits who could not be admitted into the Central Recruits' Schools were as usual trained at the head-quarter schools in the districts. **Education.** **Training School, Vellore.**

418. The cost of the department in 1911 was Rs. 80,92,797 as against Rs. 80,08,771 in 1910. There was an increase of Rs. 1·07 lakhs under the head of pay and allowances, due to further enlistment under the reorganization scheme, but this was largely counterbalanced by a saving of Rs. 1·03 lakhs under the head of compensation for dearness of food which was withdrawn in several districts for a good portion of the year. **Cost.**

419. The improvement in the work of the village police noticed last year was maintained. The most discouraging reports naturally come from zamindari tracts where the officers of Government have but little hold over village servants. In the districts of Guntūr, Kistna, Kurnool and Bellary material assistance has been rendered by the village police, and good work has been done in driving out criminal gangs. Steps were taken in the districts of Guntūr, Kurnool and Bellary to attach plots of cultivable land to the tanahs of ghât talayaris. **Village Police.**

420. The number of districts provided with armed reserves at head-quarters was 23. The annual mobilization was carried out in all the districts. Minor disturbances on ceremonial occasions involved a second or third mobilization in three districts. **Armed Reserves.**

421. With effect from the 1st July 1911 the jurisdiction of the two Superintendents of Railway Police was re-arranged and each Superintendent now deals with only one of the two important Railway Administrations of the Presidency. The year was uneventful on the whole. Both cognisable crime and grave crime slightly decreased: the percentage of property recovered fell from 32·3 to 30·5. **Railway Police.**

422. The staff at the close of the year consisted of 3 Deputy Superintendents, 11 Inspectors, 2 Sergeants, 9 Sub-Inspectors, 16 head constables and 12 constables. The principal duty on which a number of members of the staff was employed was the investigation into the Ashe murder case, which involved much labour of a trying nature. Smuggling of opium, thefts from mail bags between Madras and Calcutta, obscene publications and the kidnapping of girls to be sold for purposes of marriage, formed the subject of exhaustive enquiries by the department in addition to many enquiries of a confidential nature. At the instance of the Deputy Inspector-General of Police, Criminal Investigation Department, crime charts to help the police in tracing crime have recently been introduced in all districts and the system is likely to prove of considerable value. **Criminal Investigation Department.**

423. There was a slight improvement in the season in the early portion of the year, but from September onwards the prices of food-grains began to rise steadily and were at the end of the year higher than the average for the whole year. The number of cases of grave crime increased from 30,335 to 30,727. The percentage of cases personally investigated by District Officers rose from 54·4 to 57·9, although the **Crime.**

total number of cases to be dealt with was larger than in the preceding year. The aggregate number of true cases under the Indian Penal Code rose from 48,726 to 49,075. Madras City and the districts of Kurnool and Nellore were the most criminal parts of the Presidency. The numbers of murder (599) was only six less than in the preceding year and, as usual, Coimbatore reported the largest number (77). The districts which stood next were Madura and Salem. The number of cases of dacoity was 479 as against 448 in 1910, Nellore, Guntūr and Vizagapatam districts being mainly responsible for the increase. The number of robberies rose from 775 to 868, the increase being spread over many districts, notably Gōdāvari and Anantapur. As in the previous year, the greatest number was reported from the district of Tinnevelly where a large proportion of the cases again consisted of thefts of earrings committed by wandering criminals. Cattle thefts again showed an appreciable fall, the number reported being 3,255 as against 3,653 in 1910. The decrease occurred in most districts. There is still some popular prejudice against the system of cattle-branding which offers a safeguard against theft, but it is hoped that with the co-operation of revenue officials this will be overcome. True cases relating to coin fell further from 80 to 51. No cases of counterfeit currency notes were reported during the year. There were eight riots during the year, two of which at Coimbatore and Tiruppattūr were of a serious nature.

Murder.

Dacoity.

Robbery.

Cattle thefts.

Coining.

Riots.

Prevention of Crime.

424. Less attention is now paid to statistics of detection, and detailed instructions have been issued to Deputy Inspectors-General as to the measures to be adopted to further the honest and efficient handling of crime. Special attention is directed, among other points, to the part taken by the village police in detecting and preventing crime and the efficiency of the co-operation between them and the regular police; the prosecution of specially dangerous persons under the security sections of the Criminal Procedure Code; the suitable location of police stations; and the correct apportionment of blame for failure between the village police, the regular police and (possibly) the courts. The work in the different districts was satisfactory on the whole though difficulties were experienced owing to the paucity of capable Inspectors and the inexperience of Sub-Inspectors in charge of stations, and to special conditions in some districts where party feeling rendered it impossible to secure untainted evidence in many cases. In general the people are beginning to appreciate the new class of station-house officers, and the regular police is gradually receiving more assistance from the village magistrates and police.

Prosecution.

425. The number of original cases attended to by the Prosecuting Inspectors and Sub-Inspectors in the mufassal was 3,769 as against 3,950 in the preceding year, while the percentage of successful cases varied but slightly. For each of the two Railway Police districts, a Prosecuting Inspector was appointed while Prosecuting Sub-Inspectors were appointed in three more districts. Two prosecuting Sub-Inspectors were also sanctioned for Madras City.

Escapes.

426. Escapes from police custody rose from 107 to 123. Recaptures were made of 103 persons, of whom 10 had escaped in previous years. In 34 cases of escape the police were held to be free from blame, while as regards the other cases 35 police officers were punished departmentally and 72 were prosecuted, of whom 35 were convicted.

False cases.

427. The number of cases struck off as "maliciously and wilfully false" as well as the number of persons who were prosecuted for making such complaints showed little or no variation from those of last year, the figures being 5,254 and 382, respectively. Conviction was obtained in 146 or 38·2 per cent. of these cases as against 31·6 in 1910 and 27·7 in 1909. Of cases prosecuted by the police 0·4 per cent. were declared false after trial as against the same percentage in 1910.

Criminal gangs.

428. There were 24 wandering criminal gangs at the close of the year as against 27 at the end of the preceding year. Their strength consisted of 936 males, 791 females and 1,188 children, of whom 195 males and 5 females were in jail and 89 males, 131 females and 200 children were out of view at the close of the year. Ninety-nine members of these gangs were convicted during the year as against 197 in 1910. The registration of these gangs by the Criminal Investigation Department proceeded during the year and 11 gangs have now been completely registered, the finger prints of the members taken and their history sheets prepared. The number of bad characters newly registered during the year was 5,540 as against 6,704 in 1910. The proportion of registered bad characters, who were out

of view on the last day of the year, was 12·2 per cent. as against 12·9 per cent. in 1910. A meeting of the Superintendent of Police, South Arcot, and the Commandant of the French Territory of Pondicherry resulted in an improved system of interchanging criminal intelligence.

429. The Finger-print Bureau dealt with 10,618 references as against 9,871 in 1910. The total number of successful identifications was 2,446, of which 245 related to references from outside the Presidency. Finger-print Bureau.

430. In all 2,737 persons were proceeded against under the security sections of the Criminal Procedure Code and 66·9 per cent. were bound over as against 3,415 persons in 1910 with a percentage of 69·5. Security sections.

431. The sanctioned strength of the permanent force on the last day of the year rose from 1,762 to 1,771. The difficulty of recruitment was still felt and the number of vacancies in the force at the close of the year rose from 103 to 121. The percentage of men punished departmentally for offences other than absence without leave rose from 38·8 to 46·0. Twenty-three men were judicially punished during the year as against 17 in 1910. Three of these were punished for offences committed in their official capacity. The number of recipients of rewards rose from 103 to 413. The total number of true cases of cognisable crime investigated by the Police, excluding nuisances, rose from 1,734 to 1,868. The increase in crime was slight and was mostly in theft. Considerable activity was shown in raiding premises resorted to by habitual smokers of opium, and in one case of opium smuggling a consignment of about 800 tolas of opium was seized by the police and two members of a gang of opium smugglers whose operations extended over different parts of India were arrested and convicted. Nineteen gaming houses were raided during the year and 18 persons convicted for keeping gaming houses. The number of habitual criminals under the surveillance of the police on the last day of the year was 926 as against 959 in 1910 and that of bad characters newly registered during the year was the same as in the previous year, namely, 194. Houses of bad repute on the police registers fell from 43 to 34. Security proceedings were instituted against 31 persons, of whom 26 were bound over. During the year 62 European Police officers of the city underwent a course of training in *jiu-jit-su*. The beat and patrol system was revised and special measures were adopted to put down rowdyism in particular localities in Georgetown. **Madras City Police.** Strength. Discipline. Crime. Prevention.

CRIMINAL JUSTICE. (1911.)

[*Statistics of the Criminal Courts in the Madras Presidency for the year 1911; Statistics of British India, Part VI, Administrative and Judicial—Criminal Justice.*]

432. On the 31st December 1911 there were in the Madras Presidency the following Criminal Courts:—the High Court, 25 Sessions Courts (including 3 for Agency Tracts), 5 Additional Sessions Courts (including 4 for Agency Tracts), 25 District Magistrates' Courts, 4 Presidency Magistrates' Courts, 110 Sub-Divisional Magistrates' Courts, 36 Joint, Assistant and Deputy Magistrates without divisional charges, 501 Subordinate Magistrates' Courts (including 176 Tahsildars'), 67 Benches of Magistrates, 64 Special Magistrates' Courts and 4 Cantonment Magistrates' Courts. In consequence of the formation of the new district of Chittoor a new District Magistrate's Court was created, but no new Sessions Court was established, an Assistant Sessions Judge being appointed to assist the Sessions Judge of North Arcot, sitting at Chittoor, whose jurisdiction extends over the districts, both of North Arcot and Chittoor. During part of the year Assistant Sessions Judges were also appointed in the districts of Bellary and Coimbatore. As the result of the re-arrangement of divisions and taluks in some districts the number of Sub-Divisional Magistrates and the number of Subordinate Magistrates were each increased by 5. Two Benches of Magistrates were established for the town of Madras, two in the Bellary district and one in the Tinnevelly district. Besides Magistrates of the grades already mentioned 4,454 Village Magistrates actually tried cases in the year, or 307 more than the average of the five preceding years. The largest number of Village Magistrates tried cases in the Tanjore district (589), the fewest in Cuddapah (15), Bellary (18) and Anantapur (29). **Tribunals.** Changes. Village Courts.

Business.

433. The total number of original cases instituted in the Criminal Courts in 1911 was 339,934 or 2,355 less than the number in the preceding year. The decrease were due mainly to a decrease in prosecutions under special and local laws in the City of Madras. The total number of appeals preferred was 8,950, or 401 less than in 1910 and 782 less than the average for the years 1906—1910. There were 231,071 persons under trial during the year for offences against the Penal Code, of whom 44,932 or about 19 per cent. were convicted. Under special and local laws 221,529 persons were brought to trial and 186,203 convicted. Madura heads the list of districts with regard to the number of criminal cases of all kinds, its percentage to the total of the Presidency being 7·26; next come Tanjore (7·03 per cent.), South Arcot (6·69 per cent.), Trichinopoly (6·01 per cent.), North Arcot (5·84) and Malabar (5·83 per cent.).

Districts.

Original Cases.

Village Magistrates.

434. The number of cases instituted in Village Magistrates' Courts was 11,527 or 867 more than in 1910. The number of persons tried was 19,381, of whom 4,634 were convicted.

Other Magistrates in the mufassal.

435. In other Magistrates' Courts in the mufassal 268,500 cases were instituted. The number of cases left pending at the end of the year was 3,698 or 146 less than at the end of 1910. The average number of days from the beginning to the end of a trial in these Courts was 6 as in 1910.

Presidency Magistrates.

436. In the Presidency Magistrates' Courts the total number of cases instituted was 58,556. Only 56 cases were left pending at the end of the year.

Sessions Courts.

437. The number of cases committed to Sessions Courts in the mufassal was 1,351 against 1,320 in 1910. The Courts to which the largest number of cases were committed were those of Coimbatore (129), where there was an Assistant Sessions Judge almost throughout the year, Tinnevelly (111) and Salem (96), the three Courts which had the heaviest work in the previous year. The Courts to which the fewest cases were committed were again those of Chingleput (20) and Ganjām (26). The number of cases left pending at the end of the year was 52. The average period between committal and the conclusion of the trial was 39 days against 36 in 1910.

The High Court.

438. The number of cases committed to the High Court Sessions was 59 against 34 in the previous year. Three cases were left pending at the end of the year. A special bench of three Judges was occupied for 57 days in hearing a case under Act XIV of 1908, which was not finished at the end of the year.

Appeals.

Magistrates' Courts.

439. The number of persons who appealed to First-class Magistrates against the decisions of Second and Third-class Magistrates was 13,750 or 1,265 less than in the previous year. At the end of the year the appeals of 775 persons were pending against 947 at the end of 1910. The average period which elapsed between the presentation of an appeal and its disposal was 20 days.

Sessions Courts.

440. The number of persons who appealed to Sessions Courts against the decisions of First-class Magistrates was 2,080, *i.e.*, 70 more than in the previous year. The appeals of 105 persons were left pending at the end of the year against 153 at the end of 1910. The average duration of an appeal in these courts was reduced from 30 days in 1910 to 27 days.

The High Court.

441. To the High Court 1,296 persons appealed against 1,132 in the previous year. The number of persons whose appeals were left pending at the end of the year was 286 against 164 at the end of 1910. The Government appealed against the acquittal of 59 persons, the average of the five preceding years being 67.

Revision and Reference.

Magistrates' Courts.

442. In District Magistrates' Courts 542 applications for revision were presented or 19 less than in 1910. The number of cases taken up by District Magistrates *suo motu* or on reports from their Sub-Divisional Magistrates was 56 against 32 in 1910.

Sessions Courts.

443. The number of applications presented to Sessions Judges for revision was 347 against 386 in 1910, and the number of cases taken up by them *suo motu* 64 against 56.

The High Court.

444. In the High Court 566 revision petitions were received, 147 were reported by Sessions Judges or District Magistrates, and 55 cases were taken up *suo motu*. Death sentences on 63 persons were referred to the High Court for confirmation under section 374 of the Code of Criminal Procedure. Twenty-eight were confirmed, 19 were reduced to some other punishment and 16 were reversed. Under

section 307 Sessions Judges referred to the High Court what they considered to be wrong verdicts by juries on 43 persons. The verdicts on 26 persons were upheld, and those on the remainder (3 of "guilty" and 14 of "not guilty") were reversed.

Miscellaneous Proceedings.

445. The number of persons who were ordered to forfeit bail or recognizance fell slightly from 2,188 to 2,100. Orders to give compensation for frivolous or vexatious prosecution were passed against 1,831 persons as against 1,795 in 1910. The number of persons ordered to give security for good behaviour fell from 2,115 to 1,705; and the number of those bound over to keep the peace also fell from 590 to 503. The number of persons against whom claims for maintenance were preferred was 2,446, and orders were passed against 446. The number of persons concerned in summary cases for the decisions of possession was 2,206 and orders were passed against 457 of them.

Punishments.

Whipping.

Imprisonment.

Fines.

Juvenile and first offenders.

446. The number of persons including juvenile offenders punished with whipping fell slightly from 620 to 618, but the percentage of whippings to cases in which that punishment could be awarded rose from 15·40 to 17·82. The corresponding percentages for 1907, 1908 and 1909 were 28·09, 21·46 and 19·92 respectively. Of 23,223 sentences of imprisonment, 11,722 were for periods of six months and under and 8,844 were for periods of less than 15 days. Of persons against whom orders were passed under the security sections about 51 per cent. were imprisoned in default. Of 210,899 fines imposed, 193,798 were of Rs. 10 and under. The number of juvenile offenders ordered to be detained in a reformatory school was 42 as against 44 in 1910, and the number punished with whipping fell from 56 to 47. The number admonished or delivered to guardians rose from 23 to 139. The number of first offenders released on probation also rose from 156 to 195. The statistics indicate a steady advance in the methods of dealing with this class of offenders.

PRISONS. (1911.)

[*Report on the Administration of the Jails of the Madras Presidency, 1911; Statistics of British India, Part VI, Administrative and Judicial—Jails.*]

Accommodation.

447. The number of central jails increased from 8 to 9, and the district jails decreased from 6 to 5 owing to the status of the Vizagapatam District Jail having been raised to that of a second-class central jail. In the redistribution of districts the sub-jails at Kamalāpuram (Cuddapah district), Merkanam (South Arcot district), Vallam (Tanjore district) and at Arcot and Pernamallur (North Arcot district) were closed. The sub-jail at Kulasekarapatnam in the Tinnevelly district was removed to Sathenkulam in the same district. Four new sub-jails were opened during the year at Payyanur (Malabar district), Bikkavole (Gōdāvari), Tiruchendur (Tinnevelly) and at Cheyyar (North Arcot district). These changes resulted in a reduction in the total number of sub-jails from 312 to 311 at the end of the year. The accommodation available in jails at the close of 1911 was sufficient for 11,884 prisoners against 12,006 in the year previous. This reduction was due to the demolition of an association ward in the Coimbatore Central Jail which is being replaced by cells and the conversion of an association ward at Vizagapatam into a granary. The convict warders' block at Coimbatore was pulled down to make room for the kitchen which is now under construction. Cellular accommodation increased from 4,173 to 4,209. Temporary overcrowding occurred in a few jails and the excess prisoners were housed in verandahs, work-sheds and in tents.

Prisoners.

448. The year opened with a population of 13,042 prisoners of all classes; 82,847 prisoners were admitted and 85,612 were discharged during the year, leaving 10,277 in confinement at the end of 1911. The daily average fell from 12,997 to 12,168. The total number of under-trial prisoners received during the year was 40,661. On an average, sessions prisoners were detained pending trial for 35·17 days, and those pending trial before magistrates for 14·56 days. There were five escapes and 26 deaths amongst them. Four of the escapes were from sub-jails and one from the District Jail, Berhampur. Four hundred and twenty-nine civil prisoners remained in custody at the beginning of the year; 2,678 were admitted and 2,744 (including 95 civil debtors liberated on the Durbar day) were discharged; one was transferred and another died. The daily average and the

number of admissions of this class were the highest on record. No state prisoner was admitted during the year and one member of this class remained in the Central Jail, Vellore, throughout the year.

Convicts. 449. During the year, 20,093 males and 1,089 females were received by direct committal as compared with 23,482 and 1,462 respectively in 1910. During the year 2,257 were released on appeal, 17,101 on expiry of sentence, 3,412 under the remission rules and 1,671 (including 1,655 prisoners liberated on the Durbar day) were released by order of Government. One hundred and twenty-six convicts were deported, 26 were transferred to lunatic asylums, 27 were executed and 137 died. The average convict population in 1911 was 9,898 or 644 below the figures for 1910. Of the admissions 87·04 per cent. were Hindus, 9·60 per cent. Muhammadans, 3·35 per cent. Christians and ·01 per cent. Buddhists and Jains. Two hundred and nine boys and 82 girls (under 15 years of age) were committed to jail during the year against 296 boys and 67 girls in 1910. Of the boys, 25 were sent to the Reformatory School at Chingleput. The teachers, trade and gymnastic instructors sanctioned for the District Jail, Tanjore, have taken up their duties and a fair measure of progress was made in training youths on the lines of the Borstal system. On the last day of 1911 there were 177 prisoners (6 under 15 years of age and 171 between the ages of 15 and 21) confined at the Tanjore Jail. 15·83 per cent. of the convicts admitted were literate and 49 per cent. of the admissions belonged to the agricultural class. The number of prisoners received during the year who had been previously convicted was 2,977 against 3,374 in 1910.

Juveniles.

Conduct. 450. There were 12 escapes during the year against 13 in 1910 and 22 in 1909. Of those who escaped in 1911, 11 were recaptured and three others who had escaped in previous years were also recaptured. During 1911, 11,268 jail offences were reported including 6 dealt with by criminal courts. The corresponding figures for 1910 were 13,208 and 9 respectively. The total number of punishments inflicted fell from 13,409 to 11,412. Whipping was resorted to in only 12 cases and the awards of penal diet also fell from 149 to 104. There were 3,993 habituals in confinement at the opening of the year and 2,740 were received during the year, making in all 6,733 criminals of this class, which formed 26·3 per cent. of the total convict population. These men received 47 per cent. of the punishments and all the whippings. In the course of the year 3,412 convicts were released under the remission rules. Special remission for continuous good conduct was earned by 2,051 convicts. Six thousand four hundred and twenty-three males and 62 females received remissions of sentence on the occasion of the King Emperor's Coronation Durbar at Delhi.

Habituals.

Vital Statistics. 451. The total number of admissions to hospital was 5,528 or 1,003 fewer than in 1910; and the number of deaths declined from 188 to 164. The death-rate was 13·48 per mille against 14·47 in 1910 which was the lowest ever recorded in the Presidency. During the year, cholera caused five deaths and one convict died of plague at Coimbatore. Of the 18,069 convicts discharged during the year, 68 per cent. gained weight, 20 per cent. lost weight and 12 per cent. were of the same weight as on admission. The new dietary was in force in four of the larger jails (Rajahmundry, Trichinopoly, Coimbatore and Cannanore) throughout the year.

Sanitation. 452. The kitchens and the cooling rooms attached to them at certain jails were enclosed with fly-proof wire-netting. Convicts were required in many jails to wash their hands and feeding utensils in permanganate solution before meals. A patent Torfit urinal was put up at Coimbatore and has proved satisfactory; another was sanctioned for the Penitentiary and the introduction of this urinal into other jails is under consideration. The usual precautions were taken to ensure the food reaching the prisoners in a clean and wholesome condition.

Financial. 453. Excluding the outlay on buildings by the Public Works Department the total expenditure of the department for the year 1911 amounted to Rs. 14,74,247-3-4 against Rs. 14,50,062-0-11 in 1910. The cost of dieting per prisoner fell from Rs. 35-10-8 to Rs. 34-4-2 and the total cost of maintaining a prisoner was Rs. 73-14-5 against Rs. 73-8-1 in 1910. The net cost per head rose from Rs. 62-7-0 to Rs. 71-14-0 and the net cash earnings under manufactures dropped from Rs. 1,43,934-12-0 to Rs. 24,118-14-0. Convict labour supplied to the Public Works Department during the year was valued at Rs. 5,606 against Rs. 14,136 in the preceding year. The outlay on jail buildings during the year was Rs. 1,63,664-11-6 as compared with Rs. 1,69,336-14-3 in the previous year.

CIVIL JUSTICE. (1911.)

[*Statistics of the Civil Courts in the Madras Presidency for the year 1911; Statistics of British India, Part VI, Administrative and Judicial—Civil Justice.*]

Tribunals.

454. On the 31st December 1911 there were in the Madras Presidency the following permanent Civil Courts:—The High Court, the Presidency Court of Small Causes, the City Civil Court, 25 District Courts, 30 Subordinate Judges' Courts, 154 District Munsifs' Courts and 126 Revenue Courts. There were also 6 temporary Subordinate Judges' Courts and 6 temporary District Munsifs' Courts. Of the temporary courts in existence at the end of 1910 the Subordinate Judge's Court for North Arcot was converted into a permanent court on the 1st April 1911 to assist the District Court of North Arcot, the jurisdiction of which extends over the newly created district of Chittoor. The District Munsif's Court at Tiruvannāmalai and the Additional District Munsif's Court at Paramagudi were made permanent in January, and the Additional District Munsif's Court at Madura in December. The other temporary Courts existing at the end of 1910 were continued throughout 1911. A new permanent Subordinate Judge's Court was established at Coimbatore and new permanent District Munsifs' Courts at Dharmapuri and Mannārgudi (South Arcot) during the year. A temporary Subordinate Judge's Court was opened at Rajahmundry, and temporary District Munsifs' Courts at Narasapur, Tanuku, Villupuram and Berhampur. The number of Village Courts exercising jurisdiction rose from 5,169 to 5,437.

Litigation.
Number of suits.

455. The total number of suits instituted in the Presidency in 1911 was 450,847, the highest number so far reached and 8,115 more than in the previous year. That the difference between the figures for the two years was not greater was due to the fact that the number of mortgage suits was exceptionally large in 1910: the increase in suits of other kinds in 1911 was 18,929. Taking the Presidency as a whole one suit was instituted for every 92 persons in the population. In the Presidency town the ratio was one for every 25 persons. In the mufassal North Malabar was again the most litigious district, with one suit for every 46 persons; and, excluding the Agency tracts, Bellary again came at the other end of the list, with one suit for every 357 persons. In volume of litigation Tanjore was again first, with 45,953 suits; but the total for North and South Malabar, which form one Revenue district, was only 297 less. Each of these districts contributed over 10 per cent. to the Presidency total.

Nature of suits.

456. The number of suits instituted for money or moveable property was 379,342 or 84·13 per cent. of the total against 82·80 in 1910. There was a decline in the number of mortgage suits by almost one-third, from 32,009 to 21,795, as the temporary extension of the period of limitation for suits by a mortgagee for sale or foreclosure effected by section 30 of the present Limitation Act, which led to a rush of such suits in 1910, came to an end on 6th August of that year. In 1909, the first complete year in which the Estates Land Act was in force, the number of suits filed in Revenue Courts under that Act was 23,134 against 9,907 in 1908 and 8,809 in 1907. In 1910 the number fell to 19,569, and it then appeared likely that, the first effects of the introduction of the Act having worn off, the number of such suits would continue to fall. This however has not happened, and the number of suits instituted in Revenue Courts in 1911 was even more than the number in 1909, being 23,467. The number of suits other than mortgage suits instituted in regard to immoveable property was practically the same as in 1910, being 21,047 against 21,066. Suits for specific performance on the other hand fell from 4,762 to 4,353, a number lower than in any year since 1906.

Value of suits.

457. The total value of the suits instituted in 1911 in other than Village and Revenue Courts was Rs. 6,42,73,510, which was higher than in any other year except 1910, when the total value was Rs. 6,79,91,843. The average value was Rs. 200 against Rs. 214 in 1910. Including Village Courts but excluding Revenue Courts, for which figures of this sort are not available, suits valued at Rs. 20 or less formed 40·84 per cent. of the total against 40·99 per cent. in 1910 and suits valued above Rs. 20 but not above Rs. 500 formed 55·30 per cent. against 54·90. The number of suits valued above Rs. 500 was 15,797, which was a larger number than in any other year except 1910, when the figures were 16,208.

Percentage of successful plaintiffs.

458. In the suits disposed of in 1911, excluding those compromised or disposed of without trial, the percentage of plaintiffs who succeeded in obtaining decrees for the whole or part of the relief which they claimed was 74·89, which must be regarded as a high proportion. The percentage in 1910 was 73·48, and the average for the five years 1906–1910 was 73·02.

Number of appeals.

459. The total number of appeals preferred in 1911 was 15,647 against 14,863 in 1910 and an average of 12,152 for the five years 1905–1909.

Courts of Original Jurisdiction.

Village Courts.

460. The total number of suits instituted in Village Courts was 106,311, the largest number so far recorded. In 1910 the number was 105,011, and the average for the five years 1905–1909 was 98,629. The largest numbers of such suits were contributed by Tanjore (11,602), Tinnevelly (10,109) and South Canara (9,681), the smallest by the Bellary judicial district, which includes Anantapur (813), Kurnool (1,113) and Cuddapah (1,630). The number of suits disposed of by Village Munsifs sitting alone was 95,873 against 96,597 in 1910: Village Benches disposed of 9,935 suits against 7,896. The extension of the Bench system appears to be the most hopeful measure for increasing the usefulness of Village Courts. As it is, they deal with a large part of the petty litigation of the Presidency promptly and at very small cost to the litigants. The number of suits left pending before them at the end of 1911 was 6,730 and exceeded 500 only in Tanjore.

Revenue Courts.

461. The total number of suits filed in Revenue Courts in 1911 was 23,467. In 1910 the number was 19,569, and in 1909 it was 23,134, a number by much the highest so far recorded. The total number of suits disposed of in Revenue Courts in 1911 was only 20,151 against 24,643 in 1910, and consequently the arrears rose from 8,644 suits to 13,227. The average duration of contested suits rose from 128 days in 1910 to 144, and the average for uncontested suits from 99 days to the exceedingly long period of 210 days.

Agency Courts.

462. In Agency Courts the number of suits instituted was 1,399 against 1,285 in the previous year. To the total the Vizagapatam Agency contributed 767 suits, the Gōdāvari Agency 463 and the Ganjām Agency 169. The number of suits disposed of was 1,344, and 253 were left pending against 207 at the end of 1910. The average duration of contested suits was reduced from 110 days in 1910 to 51 days, and that of uncontested suits from 73 days to 47.

District Munsifs' Courts.

463. The number of ordinary suits filed in District Munsifs' Courts other than those for Agency tracts in 1911 was only 98,561 against 105,816 in 1910; but it was higher than the number in any previous year. On the other hand the number of small cause suits filed in these courts was 168,093 or 6,894 more than the number in 1910, which was the highest so far recorded. Altogether the number of suits filed in District Munsifs' Courts outside the Agency tracts in 1911 was 266,654 against 267,015 in 1910. Allowing for the temporary increase in the number of mortgage suits in 1910, these figures show that the work of the District Munsifs continues to grow steadily. The average duration of ordinary contested suits rose from 212 days in 1910 to 335 days, which was considerably higher than in any recent year. Of uncontested ordinary suits the average duration was 50 days against 48 in 1910 and 47 in 1909. The percentage of appeals against appealable decrees of District Munsifs' Courts was 12·50 against 12·12 in 1910: it was higher than in any recent year except 1909, when the percentage was 13·41. In the proportion of decrees confirmed on appeal there was a very considerable improvement, the percentage being 70·76 against 61·68 in 1910: in 1908 it was 69·94, but in no other recent year has so high a percentage as 70 been approached.

District and Subordinate Judges' Courts.

464. In District and Subordinate Judges' Courts other than those for Agency tracts 2,137 ordinary suits and 29,949 small cause suits were instituted in 1911. The number of ordinary suits was 132 less than in 1910 but was considerably higher than in any other year, the average for the five years 1905–1909 being only 1,594. The number of small cause suits was 2,471 more than the number in 1910 and 5,395 above the average for the years 1905–1909. The number of ordinary suits disposed of was 2,170 against 1,930 in 1910, but the arrears increased from 2,322 to 2,454: of small cause suits the arrears increased from 3,891 to 4,574 in spite of 30,037 being disposed of against 27,383 in 1910. The time at the disposal of District Judges for civil work continues to decrease, varying from 175 days in South Arcot to 48 in Rāmnād. Of the time available for civil work District Judges have to spend a large part in the hearing of appeals, and the result in 1911 was that altogether they disposed of only 339 contested and 108 uncontested

ordinary suits. There was a considerable reduction in the average duration of ordinary suits in District and Subordinate Judges' Courts in 1911; for contested suits it was 333 days against 380 in 1910, and for uncontested suits it was 87 days against 128 in 1910. The average for contested small cause suits was 100 days against 88 in 1910, and for uncontested small cause suits 43 days against 41.

City Civil Court.

465. In the City Civil Court 621 suits were instituted, 49 more than the number in the previous year, which was considerably larger than that of any other year since the establishment of the Court. The number of suits disposed of was also unprecedented, being 656, of which 489 were contested and 167 uncontested, against a total of 489 in 1910. In spite of the increase of work the arrears were reduced from 259 suits to 232.

Presidency Court of Small Causes.

466. In the Presidency Court of Small Causes the number of suits instituted was 19,896. The number of suits disposed of was 20,375, including 2,655 contested suits, and the arrears were reduced to 811. There was a further reduction in the average duration of contested suits, which was only 46 days against 50 in 1910 and 65 in 1909. For uncontested suits the average was 34 days.

The High Court.

467. In the High Court the number of suits instituted or received by transfer was 424 against 402 in 1910 and 435 in 1909. The number disposed of was only 275 against 403 in 1910, and the arrears increased from 442 suits to 591. For the reasons mentioned in paragraph 209 there were fewer sittings than usual for original civil work. The average duration of suits disposed of was reduced slightly but was still very high; for contested suits it was 519 days, for uncontested suits 186 days.

Insolvency. Mufassal Courts.

468. The number of insolvency petitions presented to mufassal Courts in 1911 was 1,078 against 983 in 1910, 884 in 1909 and 622 in 1908. Now that the provisions of the Provincial Insolvency Act of 1907 are fairly well known there is a steady increase in the use made of them. The number of petitions disposed of in 1911 was 1,062, the number left pending at the end of the year being 413 against 397 at the end of 1910. The number of insolvents discharged was only 12. It appears that few insolvents in the mufassal think it worth while to apply for their discharge. Up to the end of 1911, in the four years during which the new Act had been in force, 1,410 persons had been adjudged insolvent, and only 92 had been discharged. In the High Court 304 insolvency petitions were presented, a larger number than in any previous year. The number of petitions disposed of in 1911 was 238 and the arrears rose from 514 to 586. The number of persons adjudged insolvent was 112, and the number of insolvents discharged 133.

The High Court.

Appellate Courts. Agency Courts.

469. In Agency Courts 74 appeals were filed against 73 in 1910 and an average of 62 for the five years 1905–1909. The number disposed of was 69, and the number left pending at the end of the year 10. The average duration of appeals in these courts was reduced from 60 days in 1910 to 36 days; but a less satisfactory feature of the year's work was that the percentage of confirmation fell from 57·75 to 26·09.

District Courts and Subordinate Judges' Courts.

470. There was again a considerable increase in the number of appeals filed in District and Subordinate Judges' Courts against the decisions of District Munsifs' and Revenue Courts, the number in 1911 being 12,793 against 11,928 in 1910 and an average of 9,805 for the years 1905–1909. The number of appeals disposed of was 12,407 against 10,929; but in spite of this considerable improvement it will be seen that the Courts were not able to keep pace with the work coming in, and by the end of the year the arrears had increased from 9,854 to 10,369. The average period which elapsed between the filing of an appeal and its disposal, which in 1909 was 234 days and in 1910, 226 days was reduced to 215 days.

The High Court.

471. In the High Court the number of appeals from original decisions of lower Courts was 637 against 576 in 1910 and the number disposed of was 440 with the result that arrears increased from 1,183 to 1,380 or more than three years' work at that rate of disposal. The average duration of the appeals disposed of was 654 days against 652 in 1910. The number of second appeals was 2,140, a larger number than in any other year except 1910. The number of appeals of this class which were disposed of was 1,998 against 2,826 in 1910, and the arrears increased from 3,337 to 3,479. The average duration of the second appeals disposed of in 1911 was 595 days against 591 in 1910 and 568 in 1909. It was not possible for the

Judges to devote as much time as usual to civil work in 1911. Five Judges were absent for more than three weeks on account of the Coronation Durbar at Delhi; the ordinary criminal sessions lasted 74 days, which is more than double the usual time; and for 53 days three Judges were occupied by the trial of a case under Act XIV of 1908 connected with the murder of Mr. Ashe, Collector of Tinnevelly. At the beginning of the present year the Court was strengthened by the appointment of two additional Judges for two years. It is hoped that it will now be possible to reduce the arrears of work which have accumulated in recent years.

Revision and Reference. 472. The number of revision petitions filed in the High Court was 937, of which 574 were for the revision of decisions in small cause suits. The number of petitions disposed of was only 704, and the arrears rose from 959 to 1,192, of which 685 petitions had been pending for more than six months. Nineteen cases were referred to the High Court by lower courts, the average for the five preceding years being 16. The number of such cases disposed of was 14, including 8 under the Code of Civil Procedure, 3 under the Presidency Small Cause Courts Act, 2 under the Indian Stamp Act and 1 under the Indian Divorce Act.

Miscellaneous. **Execution.** 473. Taking all courts together except Village Courts the total number of applications for execution received in 1911 was 298,254 against 290,626 in 1910 and an average of 273,917 for the five years 1905–1909. The number of applications disposed of in 1911 was 295,456, the arrears at the end of the year being 44,129 against 41,331 at the end of 1910. Satisfaction was obtained in full in 16·55 per cent. and in part in 7·33 per cent. of the applications. The number of debtors imprisoned in execution decrees was 2,678 or 25 more than the number in 1910, which was much larger than that of any other year.

REGISTRATION. (1911.)

[*G.O. No. 927, Judicial, dated 8th June 1912; Statistics of British India, Part II, Commercial, and Part VI, Administrative and Judicial—Registration—Indian Companies Act.*]

Registration Offices. 474. During the year 14 new offices were opened and two offices were abolished. The scheme of amalgamating the sub-registry offices at the head-quarters of registration districts with the office of the District Registrar was further extended during the year. At the end of 1911 there were, as the result of this reorganization, 494 registration offices; 22 under District Registrars, 465 under special Sub-Registrars and 7 under Revenue officers.

Registration. 475. The number of registrations rose from 1,236,712 to 1,252,417. The increase of 1·27 per cent. is attributed generally to the facilities offered by the opening of new offices and the constitution of joint offices. In some districts a generally favourable season or the prevalence of epidemics affected registration adversely. The average value of documents registered rose from Rs. 262 to Rs. 274. Of the total number of registrations 1,100,930 were compulsory registrations affecting immoveable property, and included 528,987 mortgages and 185,248 instruments of sale, the figures showing only normal variations from those of last year. Optional registrations affecting immoveable property fell, from 109,020 to 96,605, of which 55,536 were furnished by North and South Malabar. The decline in optional registrations was due partly to a change from the 1st June 1911 in the classification of leases in consequence of a ruling of the High Court under which non-agricultural leases executed by the lessee for one year and less, which were previously classified as optional, are now compulsorily registrable. Another cause contributing to a decrease in optional registrations is to be found in the rise in value of immoveable property, the result of which is to transfer to the compulsory class transactions which previously would not have required registration. The number of wills registered again rose from 6,748 to 7,464.

Prosecutions. 476. Three prosecutions were pending at the commencement of 1911 and 8 cases were instituted by the officers of the department during the year. Convictions were obtained in 8 cases and the remaining 3 were pending at the close of the year.

Copying of Documents.

477. The percentage of documents copied on the day of presentation rose from 53·74 to 59·03. The percentage is the highest obtained since 1905 (60 per cent.) and is notable since duties in connection with census operations interfered with the ordinary work of the registering establishments during the earlier months of the year.

Finance.

478. The revenue of the department rose from Rs. 19·21 lakhs to Rs. 19·89 lakhs. Expenditure fell from Rs. 14·56 lakhs to Rs. 13·43 lakhs.

Inspections.

479. All the District Registrars' offices were inspected by the Inspector-General. Of the sub-offices, 41 were inspected by the Inspector-General and 72 by the Inspector of Registration offices. All the sub-offices except those at Anjengo and Tangasseri (inspected only in alternate years) and Bhadrāchalam and Nugur were inspected by the District Registrars. One hundred and forty-one sub-offices were inspected by Revenue officers.

Notaries Public. (1911-1912.)

480. At the close of 1910–1911 there were Notaries Public at 219 stations and the number of registering officers who were also Notaries Public was 26. Owing to changes in the constitution of registration sub-districts the list of officers of the registration department exercising these powers was revised and the opportunity was taken to exclude stations where the notarial transactions in the past did not justify the appointment. The revised list was published in the Notification of the Government of India, Home Department, No. 436, Judicial, dated the 28th February 1912. As a result, 91 stations were abolished and 13 new stations were created and at the end of 1911–1912 there were Notaries Public at 141 stations, and the total number of stations, including those of registering officers who were also Notaries Public, was 178. The transactions were confined to 21 stations. The number of negotiable instruments dealt with during the year fell from 337 to 179; of these 137 were bills of exchange and 42 promissory-notes. The aggregate value of the transactions was Rs. 1,68,342 as against Rs. 5,84,785 in 1910–1911. The fees realised amounted to Rs. 458–12–0 and the expenses incurred by Notaries Public to Rs. 17–9–0. Of the balance of Rs. 441–3–0, a sum of Rs. 435–3–0 was remitted into the treasury before the close of the year and Rs. 6 was remitted in April 1912. There was no expenditure under "19-A. Law and Justice—Charge of Notaries Public." No inspection under rule 4 of the notarial rules was made by District Judges.

Registered Companies. (1911-1912.)

481. The number of companies registered was 40, 36 being joint stock companies and 4 companies limited by guarantee. The numbers last year were 37, 33 and 4 respectively, the increase this year being chiefly under mills and presses. At the end of the year there were 582 companies working, 437 limited by shares and 145 by guarantee. The corresponding figures for 1910–1911 were 666, 465 and 201 respectively. The number of companies which were wound up or ceased to work during the year was 124, 64 of which were limited by shares and 60 by guarantee. Of this number 61 were Provident Societies, 1 limited by shares and 60 by guarantee. One hundred and twenty-three Provident Societies, 62 of which were in the district of Tanjore, were working at the close of the year against 182 a year previously. The number of these societies, which are regarded with suspicion by the people, has steadily fallen in the last five years from 567 companies in 1907 to the present figure. The control of these societies will for the future be governed by the Provident Insurance Societies Act, 1912. The capital of 263 companies was increased while that of 42 was reduced. The average paid-up capital of joint stock companies was Rs. 1,10,808, the figures, which are the highest yet reached, showing a steady increase from 1903–1904, onwards, when the average paid-up capital was Rs. 64,050.

CO-OPERATIVE CREDIT SOCIETIES. (1911–1912.)

[*Annual Report of the working of the Co-operative Credit Societies Acts (X of 1904 and II of 1912) for the year 1911–1912; Statistics of British India, Part II, Commercial.*]

General Societies.

482. The total number of societies on the 30th June 1912 was 972, of which 9 were central, 46 urban and 917 rural societies, with a total membership of 66,156 as against 44,102 members in the preceding year distributed among 596 societies.

Working capital. profit.

The working capital of urban and rural societies at the close of the year was Rs. 43·36 lakhs. The net profit on gross income was 0·98 per cent. and 1·76 per cent. respectively in the case of central and urban societies which pay dividends and maintain office establishments, and 2·15 per cent. in rural societies, which seldom pay interest on share capital and incur little or no office expenditure. Of the total demand for the year, Rs. 32·01 lakhs, societies collected 78·5 per cent. within the year as compared with 85·7 per cent. in the preceding year, the decline being in the collections of central and rural societies, central societies recovering only 64·4 per cent. of the current demand as compared with 84·5 per cent. in 1910–1911. No additions were made to the inspecting staff during the year although the number of societies increased, and in consequence rural societies worked less under the stimulus of visits of inspection, and the fall in their collections was accompanied by a corresponding decline in those of the central and district banks.

Working of Societies.

Central societies.

483. At the end of the year there were 9 central societies, of which 5 were central banks, constituted for the purpose of financing other, chiefly rural, co-operative societies, 3 were unions of societies in the Chingleput district formed for the purpose of controlling and supervising the member-societies, but not for financing them, and 1, the Madura-Rāmnād Co-operative District Bank (Limited), registered in the last week of the year, was a District Bank as well as a District Union, its object being both to finance and control the co-operative societies in the district. All the banks with the exception of the Salem District Bank increased their working capital during the year. The working of the Trichinopoly and Coimbatore District Banks was notably successful and they were of considerable help in spreading the movement in their own and the neighbouring districts. The former bank supplied societies in Tanjore and South Arcot on some occasions, while the latter was the Central Bank for societies in the Nilgiris and South Canara as well as for those in its own district. The total working capital of the 5 central banks was Rs. 31·27 lakhs and their net profit Rs. 54,245, while their total reserve fund amounted to Rs. 46,533. Their membership rose during the year from 420 to 643. The rate of dividend paid ranged from 9 to 12 per cent. except in the case of the Tenali District Bank which worked at a net profit of only Rs. 175. The

Unions.

chief functions of the three unions in Chingleput District were the inspection of the accounts of affiliated societies and the scrutiny of all applications for loans. Two of these unions were registered on a basis of unlimited liability; the third, registered since the passing of Act II of 1912 making such registration of unions illegal, was registered as a limited liability company.

Urban societies.

484. Of the 46 urban societies 37 were cash societies, 4 were purely distributive or productive, while 5 combined credit with distributive or productive work. Two of the cash societies had been registered but had not been started before the close of the year. Cash societies are either limited or unlimited, the object in registering an urban society as unlimited notwithstanding the risks so incurred being to attract outside capital. Those urban societies which are able to rely on capital raised locally prefer to register themselves with limited liability. The membership of the 35 urban cash societies which were working during the year was 10,125 and their working capital of Rs. 5·84 lakhs was composed in almost equal proportions of share capital, deposits by members and loans and deposits by non-members, only Rs. 65,200 having been borrowed from other societies. They made a net profit of Rs. 18,579. The aggregate amount of the loans issued was Rs. 5·58 lakhs, of which 48·2 per cent. was applied to productive purposes, 41·5 per cent. to the discharge of prior debts and 10·3 per cent. to non-productive uses. A comparison between loans issued by urban societies in 1911–1912 and those issued in the two years 1909–1911 shows that loans for the purchase of raw materials for industries were relatively few, while loans for marriages were more in demand in 1911–1912 than in the two preceding years. Only 14·5 per cent. of the loans were taken for the purchase of food and necessaries of life against 19·9 per cent. in the previous period. There was no material change in the average amount of individual loans, those between Rs. 100 and Rs. 250 preponderating. Urban societies collected 92 per cent. of the demand under principal, including arrears, 94 per cent. of the interest due for 1911–1912 and only 77·4 per cent. of the interest due for former years. The smallness of the last percentage is due to the fact that interest in urban societies is due from month to month and if not paid till the end of the year it is liable to be recovered by suit,

and collection then becomes possible only when suits are decided and decrees given. Of the 9 urban productive and distributive societies 8 worked at a profit during the year and 1, the Ootacamund Urban Co-operative Stores (Limited), at a loss of Rs. 392. The membership at the close of the year was 3,402 as compared with 2,904 in 7 societies in the preceding year. The aggregate working capital of these societies was Rs. 1·49 lakhs and their total profit Rs. 22,967. Five of the societies made only nominal profits. Productive and distributive societies.

485. Of the 917 rural societies working at the end of the year, 916 were cash societies and 1 was a grain bank. The working capital of the 916 rural cash societies was Rs. 36·03 lakhs or nearly 50 per cent. more than the working capital of 560 societies in the preceding year. Many of the new societies were either not fully at work or had not been started when the year closed. The bulk of the capital was obtained by loans from central banks, and only 51 of the older societies raised their own capital by means of loans and deposits locally obtained to the extent of Rs. 1,000 or more. These 51 societies held among them deposits to the extent of Rs. 1·01 lakhs which is nearly 70 per cent. of the total deposits (Rs. 1·46 lakhs) held by the 916 rural cash societies in the Presidency. The Madura Permanent Fund, a nidhi with a large surplus, was the financing agency for 17 societies which had on the last day of the year borrowed from this source Rs. 57,000 at $6\frac{3}{4}$ per cent. interest. The net profit made by all the rural cash societies which were working during the year was Rs. 67,176 or Rs. 18,115 more than the net profit made by 560 societies last year. About 60 per cent. of this amount was made by the first and second class rural societies, *i.e.*, by the 51 societies referred to above and by 169 other societies, each of which made not less than Rs. 100 as net profit. The total amount lent by rural societies was Rs. 22·91 lakhs of which 50·7 per cent. was for productive purposes, 47·5 per cent. for the liquidation of old debts and only 1·8 per cent. for non-productive purposes. The chief productive purposes for which loans were granted were for the purchase of cattle, 12·9 per cent. of the total amount; for trade 9·3 per cent.; for cultivation expenses 6·9 per cent.; for food and necessaries of life 5·2 per cent.; for house-building 4·6 per cent. and for the purchase of land 4·2 per cent. On loans of Rs. 250 and above, 23·9 per cent. of the total was granted against 19·5 per cent. in the two previous years, the rise being mainly due to the increasing tendency to pay attention to the discharge of old debts. Immoveable property was mortgaged for 43·2 per cent. of the loans issued and personal security was pledged for 55·7 per cent. against 47·4 per cent. and 50·7 per cent. respectively in the two previous years. Loans for terms not exceeding one year at a time amounted to 99·2 per cent. of the transactions, but, as practically all loans are given in the first instance for a year or for a shorter period and the term is renewed from time to time, the percentage is no proof that loans are not occasionally allowed to run on for four or five years. Extensions are allowed by the by-laws of societies to borrowers who pay regularly one-fifth, one-fourth or one-third of the principal every year, together with the interest, failing which the entire loan is liable to be treated as overdue. There were 3,743 such overdue loans in rural societies, covering Rs. 2·84 lakhs in 1911–1912 against 2,222 overdue loans covering Rs. 1·62 lakhs in 1910–1911. The principal or an instalment thereof might be paid very shortly after the due date and an extension obtained, but the loan would still be treated by the auditor as overdue in every such case. The membership of the 917 rural societies at the end of the year was 51,986 as against 34,086 members in 560 rural societies in the preceding year. Rural societies collected 81·7 per cent. of the principal due to them, 90·5 per cent. of the interest due in the current year and 75·8 per cent. of the interest due in the previous year. The remaining rural society, the Kilacheri Grain Bank, was not registered till the 31st May 1912. Rural societies.

486. The total cost to Government of working the Co-operative Societies Act during the year was Rs. 80,129 or 0·37 per cent. of the total receipts and disbursements of societies against 0·5 per cent. in 1910–1911 and 0·6 per cent. in 1909–1910. Finance.

487. Four societies were registered during the year for the purpose of rescuing the Badagas of the Nilgiri hills from their bondage to the Labbais whose extortionate proceedings have often been described. The reserve fund of all societies in the Presidency amounted to Rs. 2·98 lakhs against Rs. 1·85 lakhs in the preceding year. The number of suits filed by urban and rural societies fell from 152 to 143. Five important conferences were held during the year. Miscellaneous.

LOCAL BOARD ADMINISTRATION.

[*Statistics of British India, Part VIII, Local Funds—Local Boards.*]

Local Boards and Union Panchayats.

District Boards.

488. The Madras Local Boards Act, 1884, as amended in 1900, continued to be in operation in all the districts of the Presidency except Madras where the Madras City Municipal Act, 1904, was in force. There were 25 district boards against 23 in the previous year, Rāmnād and Chittoor having been newly constituted with effect from 1st April 1911. Each board consisted of the Collector of the district as *ex-officio* member and president and not less than 24 other members, the officers in charge of revenue divisions being *ex-officio* members; in the Nilgiris however the minimum number of members excluding the president was 12. On the last day of the year the total strength of district boards was 765 or 69 more than in the previous year, the maximum strength having risen from 747 to 806. Of the actual total number 124 were *ex-officio* members, 282 (72 officials and 210 non-officials) were nominated by Government, and the remaining 359 (109 officials and 250 non-officials) were elected by the taluk boards against 117, 265 and 314 respectively in 1910–1911. One-half of the sanctioned number of members of each district board was elected by the taluk boards in all the districts except the Nilgiris and Koraput, where there were no taluk boards, and Gōdāvari where the number of elected members has been fixed at less than one-half. The number of meetings held by district boards was 280 or 31 more than in the previous year and the average percentage of attendance of official and non-official members at each meeting was 56·9 and 57·2 respectively against 58·8 and 60·7 in the preceding year.

Taluk Boards.

489. There were 95 taluk boards, each board consisting of a president and not less than 12 other members. During the year the Taluk Boards of Ellore, Chittoor and Cuddalore were given the privilege of electing their presidents from among their own members, the revenue divisional officer being *ex-officio* member and president in all other cases. The sanctioned strength of the taluk boards rose from 1,532 to 1,688 and on the 31st March 1912 there were 1,484 members or 80 more than on the corresponding date in the previous year. Of these 403 were officials and 1,081 non-officials, the corresponding figures for the previous year being 373 and 1,031. The elective system which was introduced in July 1909 was expanded during the year, the elective proportion having been enhanced from one-third to one-half with effect from 5th January 1912. Of the 100 seats thrown open to election within the year, only 26 were actually contested, 38·5 per cent. of the registered voters having taken part in the elections. In 26 cases a Government nomination became necessary owing to the failure of the voters to propose candidates. The total number of meetings held by the taluk boards was 1,225, or 183 more than in 1910–1911, but the average percentage of attendance of members was the same (63·1) in the case of officials and fell from 58·5 to 58·3 in the case of non-officials. The presidents of district boards continued to exercise the powers both of appointing and re-appointing members of taluk boards and of accepting resignations of members of district and taluk boards

Union Panchayats.

490. In all districts except South Canara and the Nilgiris, union panchayats continued to assist in the administration of local affairs in important villages within the taluk board areas. There were altogether 393 panchayats or three more than in the preceding year. Each panchayat consisted of not less than five members, the headmen of the revenue villages wholly or partly included in the unions being *ex-officio* members, and the other members being appointed by the presidents of taluk boards. The number of members on the panchayats at the close of the year rose from 3,721 to 3,744, of whom 825 were village headmen, 289 other officials and the remaining 2,630 non-officials. The number of meetings held by the panchayats was 5,187 or 100 more than in the previous year. The work done by these bodies was generally confined to sanitary arrangements in the unions, and the construction, repair and lighting of the roads lying within their jurisdiction, but in some cases the management of choultries and markets was entrusted to them by the taluk boards.

Receipts.

491. Land-cess was levied at two annas per rupee of the assessment in the Nilgiris (except a portion of the South-East Wynaad where the rate was one anna), at rates varying from As. 2 to As. 1–3 in Malabar, at As. 1–6 in South Canara and at one anna in the remaining districts. In Tanjore a fourth of the receipts under this head continued to be set apart for railway construction. In

the districts of South Arcot, Coimbatore, Guntūr, Kistna, Kurnool, Madura, Rāmnād, Salem and Tinnevelly a special cess of three pies in the rupee on the annual rent value of all occupied lands was also levied for the construction of railways. Tolls upon carriages, carts and animals were collected in all districts and the number of toll-gates was 328 or 14 less than in the previous year. House-tax was levied in all unions, the maximum rates being in force in 310 cases, three-fourths in 60, two-thirds in four and half rates in the remaining 19. Excluding the transactions under debt heads, the year opened with a balance of Rs. 1,00,11,053 or Rs. 14,46,378 more than in the previous year. The actual receipts increased from Rs. 1,34,62,927 to Rs 1,49,00,889. Excluding the receipts from the special railway cess the revenue from rates and taxes fell by Rs. 16,440, the net result of an increase of Rs. 51,234 under house-tax and a decrease of Rs. 37,983 and Rs. 29,691 respectively under land-cess and tolls. There was a noticeable rise in the land-cess in the districts of Gōdāvari (Rs. 44,788), Ganjām (Rs. 41,467), Vizagapatam (Rs. 28,906) and Chingleput (Rs. 17,557) counterbalanced by a fall in the districts of Guntūr (Rs. 76,636), Kistna (Rs. 33,601) and Malabar (Rs. 25,453). The decrease under tolls occurred chiefly in Kistna (Rs. 12,160) and Guntūr (Rs. 10,900). The grants received from Provincial funds amounted to Rs. 33,86,847 or Rs. 12,23,722 more than in the previous year. Out of this amount, a sum of Rs. 14,40,000 was contributed from the special assignment made by the Government of India in aid of the general resources of local boards and was supplemented by a further grant of Rs. 93,000 for the same purpose, Rs. 6,86,191 for public works, Rs. 1,25,000 for elementary school buildings, Rs. 2,98,975 for the opening of new schools and the maintenance of existing ones, Rs. 2,03,600 for medical buildings, Rs. 50,311 for hospitals and dispensaries, Rs. 4,55,219 for sanitation and Rs. 34,551 for choultries. The grants for public works were paid chiefly to the District Boards of the Nilgiris (Rs. 96,600) and Koraput (Rs. 23,000) in consideration of the smallness of their revenues. The educational grants to district boards took the form of lump assignments intended to enhance their other resources so as to enable them not only to maintain their own elementary schools adequately but also to open new schools where they were wanted and to house such schools in suitable buildings. The grants for medical buildings were intended for the provision of proper accommodation for medical institutions previously located in rented buildings unsuitable for the purpose, while the grants paid on account of hospitals and dispensaries represented chiefly the Provincial share of the pay and allowances of the medical subordinates employed by the local boards. The grants for choultries continued to be disbursed to local boards in nine districts in lieu of the income from lands originally assigned for the maintenance of choultries by their founders and subsequently resumed by Government.

Expenditure.

492. Excluding the charges relating to debt heads and the contributions from one district board to another, the total expenditure of the local boards rose from Rs. 1,22,06,753 to Rs. 1,29,86,484 and the year closed with a balance of Rs. 1,19,25,458.

Public works.

493. The outlay on public works rose from Rs. 62,98,153 to Rs. 70,94,944, of which Rs. 23,96,358 were spent on the construction of roads, bridges, school houses, dispensaries, markets and other miscellaneous public improvements and the remaining Rs. 46,98,586 on repairs to existing works. The length of new roads constructed was nearly 186 miles or 13 miles less than in the previous year, but the expenditure on this account rose from Rs. 5,40,846 to Rs. 5,58,300. The mileage of roads repaired was 24,138 against 23,711 in 1910–1911, the outlay thereon consequently increasing from Rs. 36,58,140 to Rs. 37,65,275. Local boards maintained their own engineering establishments but the construction and maintenance of some roads running along tank bunds and canal banks and a few special roads and bridges were entrusted to the Public Works Department.

Education.

494. The educational institutions maintained by local boards at the close of 1911–1912 consisted of 23 sessional schools for the training of teachers, one Sanskrit college, 69 secondary and 4,173 elementary schools. Seven hundred and thirteen students received instruction in the sessional schools during the year and the attendance at the secondary and elementary schools was 203,859 boys and 37,540 girls against 175,396 and 29,794 respectively in the previous year. During the year teaching grants to private institutions were disbursed directly from Provincial funds instead of through the agency of the local boards, in all the districts. The total expenditure incurred by local boards on educational objects was

Rs. 14,22,026, the receipts *per contra* being Rs. 6,20,072, of which Rs. 3,21,097 formed fees collected from pupils and Rs. 2,98,975 represented contributions from Provincial funds. The net local fund outlay was thus Rs. 8,01,954, a figure which represents 8·1 per cent. of the total ordinary income of the local boards.

Medical institutions.

495. The number of hospitals and dispensaries in charge of the local boards was 129 and 252 against 129 and 247 respectively in the preceding year. The cost of maintaining these institutions fell from Rs. 8,28,522 to Rs. 7,80,713 and the number of patients treated thereat from 3,787,554 to 3,763,924. The number of midwives employed by local boards was 288 at a cost of Rs. 43,604 against 284 at a cost of Rs. 42,018 in the previous year; the number of labour cases attended by them rose from 22,868 to 22,932.

Vaccination.

496. Seven hundred and fourteen vaccinators including probationers were employed by the district boards against 726 in the previous year. The average cost of each successful operation fell from As. 2-8 to As. 2-5.

Sanitation.

497. The expenditure on sanitation was Rs. 8,98,295 against Rs. 7,04,371 in 1910-1911.

Railways.

498. Railways owned by district boards worked only in the districts of Tanjore and Kistna. The construction of additional branch lines in Tanjore and of railways contemplated by certain other district boards continued to be in abeyance pending the settlement of the terms of their construction and working. The model agreement for the working of district board branch lines by railway companies which was drawn up by a committee appointed for the purpose has been accepted in the main by the railway administrations and the district boards concerned, and it is hoped that most of the suspended lines will be commenced at an early date. The balance in favour of the railway guarantee fund of the Tanjore District Board at the beginning of the year was Rs. 20,23,200 in Government securities and Rs. 1,40,578 in cash. The gross earnings of the district board's railway fell from Rs. 7,79,903 to Rs. 7,60,267 and the working expenses of the railway amounted to Rs. 4,25,209 against Rs. 4,57,468 in the previous year. In addition to this the district board repaid a sum of Rs. 71,114 to Provincial funds towards the recoupment of the Government share in the railway which is treated as a loan, Rs. 24,354 to the debenture holders as interest and Rs. 21,520 to the sinking fund towards the liquidation of the debenture loan. The profit derived by the district board from the working of the railway during the year was Rs. 3,35,058 or 6·9 per cent. on the capital outlay. The balance in favour of the fund at the end of the year after taking into account the items of charges above referred to and Rs. 10,33[illegible] debited to the head "Construction of Railways" was Rs. 23,35,500 in Government securities and Rs. 1,22,722 in cash. The balance in favour of the railway cess fund of the Kistna District Board at the beginning of the year was Rs. 5,81,400 in Government securities and Rs. 2,02,358 in cash. The gross earnings of the district board railway fell from Rs. 2,90,778 to Rs. 2,34,578 and the working expenses amounted to Rs. 82,738 against Rs. 1,33,465 in the preceding year. In addition to this, the district board repaid a sum of Rs. 69,773 to Provincial funds towards the loan taken from Government for the construction of the line. The profit derived by the District Board from the working of the railway during the year was Rs. 1,51,840 or 6·9 per cent. on the capital outlay. The balance in favour of the fund at the end of the year was Rs. 7,86,500 in Government securities and Rs. 1,47,973 in cash.

MUNICIPAL ADMINISTRATION—MUFASSAL.

[*Statistics of British India, Part VIII, Local Funds—Municipalities.*]

General.

499. The number of municipal councils administered under the Madras District Municipalities Act, 1884, continued to be 61. The orders of the Government of India on the recommendations of the Royal Commission on Decentralization have not yet been received.

Constitution of Councils.

500. During the year the number of elected members on the Municipal Councils of Vellore and Nellore was raised from 7 and 6 respectively to 10 and 9, the number of nominated members being correspondingly reduced while in Tiruvannāmalai the total strength of the council was increased from 12 to 15, the number of nominated members being raised from 8 to 10 and that of elected members from 4

to 5. On the 31st March 1912 the total strength of the several councils was 896 members, of whom 69 were *ex-officio* councillors, 377 nominated by Government and the remaining 450 elected by the tax-payers and inhabitants. Including the elected members, 168 were officials and 728 non-officials as against 189 and 751 in the previous year; while the number of European and Eurasian members was 134 and that of Indians 762. The Municipal Councils of Walajapet, Chidambaram, Chicacole, Tenali, Ellore, Kurnool, Palni, Periyakulam, Mannārgudi, Tinnevelly and Anakāpalle consisted entirely of Indian members. The total number of meetings held by the municipal councils was 1,606 or 40 more than in the previous year while as many as 90 were adjourned for want of a quorum. The average attendance of the councillors at each meeting fell from 8·9 or 53·5 per cent. of the sanctioned strength to 8·7 or 52·1 per cent. As in the previous year the system of appointing municipal councillors by election was in force in 58 municipalities and 51 of these were divided into wards for electoral purposes; in the remaining seven towns elections were held for each town as a whole. The right of electing their chairman was exercised as in the previous year by 35 municipal councils.

Receipts.

501. The opening balance of the year was Rs. 10,24,137 against Rs. 9,93,839, in 1910–1911. The current receipts rose from Rs. 55,88,983 to Rs. 60,87,697 the increase occurring mainly under taxes and tolls and grants and contributions from Government and from other bodies. There was, however, an appreciable decrease under loans. The principal taxes continued to be those on buildings and lands, water and drainage tax and the tax on arts; and the income realized from these sources amounted to Rs. 12,80,409, Rs. 4,62,641 and Rs. 2,48,186 respectively against Rs. 12,30,213, Rs. 4,30,149 and Rs. 2,37,110 in 1910–1911. The income from tolls and from educational institutions slightly declined from Rs. 5,22,454 and Rs. 1,74,359 to Rs. 5,20,152 and Rs. 1,67,611 while that from markets and slaughter-houses showed a further increase from Rs. 3,04,042 to Rs. 3,24,627. The grants and contributions paid by Government amounted to Rs. 9,60,342 against Rs. 7,47,659 in 1910–1911 and consisted of Rs. 7,85,997 paid for general, Rs. 36,984 for educational, and Rs. 1,37,361 for medical purposes, the corresponding figures for the previous year being Rs. 6,94,342, Rs. 25,893 and Rs. 27,425. The increase in the grants for general and medical purposes was due to the disbursement of larger special grants to municipal councils for the improvement of sanitation and for hospital buildings. In addition to these grants which were included in the municipal accounts, Rs. 4,41,955 were spent by the Public Works Department out of grants provided by Government, on several municipal works, chief among which were the following:—

Government grants.

Special grants.

Berhampur water-supply (Rs. 49,970), Kodaikānal water-supply (Rs. 5,203), Negapatam water-supply (Rs. 18,730), Periyakulam water-supply (Rs. 9,055), Vizianagram water-supply (Rs. 2,90,558), construction of a service reservoir in connection with the Tanjore water-works (Rs. 20,000), Ootacamund drainage (Rs. 38,058), extensions to the Victoria College and the construction of a hostel in Palghat (Rs. 2,506) construction of a hospital in Salem (Rs. 2,000) and improvements to the municipal hospital, Vellore, (Rs. 3,276).

Loans.

502. Loans from Government amounted to Rs. 2,27,690 against Rs. 3,25,660 in 1910–1911. The Municipal Councils of Kodaikānal, Periyakulam, Salem and Tanjore borrowed Rs. 42,700, Rs. 21,000, Rs. 10,000 and Rs. 25,100 respectively for the construction or improvement of their water-works. A loan of Rs. 3,890 was advanced to the Municipal Council of Conjeeveram for the construction of vegetable stalls in the Big market, while loans amounting to Rs. 50,000 and Rs. 75,000 were paid to the Municipal Councils of Bellary and Rajahmundry respectively for opening out congested areas. No loan was raised in the open market during the year.

Incidence of Taxation.

503. The average incidence of municipal taxation per head of population according to the census of 1911 rose from Rs. 1–4–11 to Rs. 1–5–8. The incidence was, as usual, relatively high in the three hill municipalities of Ootacamund, Kodaikānal and Coonoor, being Rs. 6–10–2, Rs. 5–12–3 and Rs. 4–10–0 respectively, while in the plains it ranged from Rs. 1–15–7 in Bezwada to As. 10 in Srīvilliputtūr.

Expenditure.

504. The total expenditure amounted to Rs. 54,50,413 against Rs. 55,53,353 in 1910-1911. The decrease was noticeable under public works, hospitals and dispensaries, plague charges, repayment of loans and advances. A sum of Rs. 17,69,700 or Rs. 1,44,341 less than in the previous year was spent on public works. The

Public works.

construction and maintenance of municipal roads absorbed 94·6 per cent. of the net income from tolls. Schemes for the water-supply of Berhampur, Chidambaram, Kodaikānal, Negapatam, Periyakulam, Salem and Vizianagram, the extension of the Gudiyāttam water-supply to Bodipet, improvements to the water-works at Conjeeveram, Guntūr, Tanjore and Trichinopoly and the drainage of Ootacamund were under execution by the Public Works Department. Water-supply schemes for Anantapur, Bellary, Chicacole, Chingleput, Cochin, Cuddalore, Erode, Mangalore, Masulipatam, Nandyal, Ongole, Palni, Rajahmundry and Srīrangam, a joint scheme for the supply of water to Tinnevelly, Tuticorin and Palamcottah, a scheme for the extension of the Vizagapatam water-supply to Waltair, schemes for the improvement of the water-works at Adōni, Conjeeveram, Coonoor, Cuddapah, Dindigul, Kurnool, Madura, Tirupati, Trichinopoly and Vizagapatam and drainage schemes for Adōni, Bellary, Berhampur, Bezwada, Calicut, Chidambaram, Chingleput, Cocanada, Cochin, Cuddapah, Ellore, Erode, Guntūr, Kumbakōnam, Mangalore, Nandyal, Negapatam, Nellore, Rajahmundry, Salem, Trichinopoly and Vellore were either under investigation or preparation by the Sanitary Engineer or under consideration by the Sanitary Board, Chief Engineer or Government.

Medical relief.

505. There was at least one hospital or dispensary available to the public in each municipality. The hospitals at Ootacamund and Vizagapatam, however, remained under private management and received aid from municipal funds, while the hospital at Tirupati continued to be managed by the local municipal council but to be supported financially by the Mahant of Tirupati. The institutions in the other towns were maintained by municipal councils and a portion of their maintenance charges was generally met by a contribution from local funds. The total number of in-patients treated in these institutions rose from 31,610 to 34,576 and that of out-patients from 1,818,827 to 1,839,213. The total cost of their maintenance was Rs. 4,60,842 or Rs. 38,864 less than in the previous year. The number of educational institutions maintained by municipal councils was 353 or 15 more than in the previous year and consisted of 3 colleges, 23 secondary and 3 7 elementary schools. The attendance at these schools was 32,737 against 30,466 in 1910–1911. The several councils spent Rs. 3,46,401 on the maintenance of their own schools exclusive of Rs. 29,798 expended by them on the construction and repair of school buildings while they aided 653 elementary schools containing 49,247 pupils with teaching grants to the extent of Rs. 90,846. An expenditure of Rs. 21,601 was also incurred by the councils on miscellaneous educational purposes. The total expenditure on education was thus Rs. 4,58,848 excluding the outlay on school buildings. Against this the councils realized an income of Rs. 2,14,456, of which Rs. 1,67,611 represented the receipts from school fees, Rs. 36,984 grants and contributions from Government and Rs. 9,861 other miscellaneous receipts. The net municipal outlay on education was thus Rs. 2,44,392 or 10·4 per cent. of the receipts from taxation excluding the water and drainage tax, the corresponding figures for 1910–1911 being Rs. 2,48,468 or 10·9 per cent. The expenditure on conservancy was Rs. 10,56,482 and that on lighting Rs. 1,87,312 the corresponding figures for 1910–1911 being Rs. 10,68,665 and Rs. 1,84,606.

Education.

Sanitation and lighting.

Debt.

506. The amount of public debt outstanding against the several municipalities on 31st March 1912 was Rs. 30,24,835 towards the repayment of which there were sinking funds to the extent of Rs. 2,11,500.

MUNICIPAL ADMINISTRATION—CITY OF MADRAS. (1911–1912.)

Financial.

507. The total receipts of the Corporation, including the opening balance, amounted to Rs. 55,35,194 and the charges to Rs. 36,88,744 against Rs. 57,62,655 and Rs. 36,59,537 respectively last year. The income from municipal rates and taxes was Rs. 17,42,912 or Rs. 62,736 more than in 1910–1911. The current revenues from taxes rose by Rs. 81,252 and the arrears were reduced to Rs. 212. The incidence of taxation per head of the population was Rs. 3–5–9 against Rs. 3–3–10 in 1910–1911. The revenue derived from municipal property and powers apart from taxation fell from Rs. 5,78,911 to Rs. 5,37,028, the decrease being chiefly due to a fall in the income from licence fees for import of timber and firewood and to the failure of the lessee of the grass-farm to pay the instalments of rent. The contributions from Government aggregated Rs. 5,48,950 against Rs. 7,32,350 in 1910–1911 and were made up of the usual annual contribution of

Rs. 32,350, an additional recurring grant of Rs. 8,000 for the maintenance of Mount and Poonamallee Roads, a special grant of Rs. 5,00,000 for the improvement of water-supply and drainage and a contribution of Rs. 8,600 being the moiety of the cost of a motor fire-engine purchased by the Corporation. The miscellaneous receipts rose from Rs. 1,41,899 to Rs. 1,51,288, the increase being due to a larger income under payment for water for non-domestic purposes and to the transfer of the net receipts from the Workshop to the Revenue Account during the year. The debt at the close of the year was Rs. 81,26,573. The loan of Rs. 1,00,000 raised in 1882 for the drainage of Georgetown and Rs. 2,49,500 out of the loan of Rs. 2,50,000, raised in the same year, for the extension of water-supply, were repaid during the year. A sum of Rs. 30,164 was paid towards the repayment of Government instalment loans and Rs. 3,46,353 towards interest on all loans. The sinking funds at the close of the year on account of the several loans exclusive of the Government Instalment loans amounted to Rs. 23,15,000 in Government promissory-notes and Madras municipal debentures.

Works.

508. The total outlay on works was Rs. 22,14,344 or 60·03 per cent. of the total expenditure, against Rs. 21,85,784 in the previous year. Of this sum, Rs. 13,80,890 or 62·36 per cent. was spent on new works, Rs. 6,58,545 or 29·74 per cent. on repairs, Rs. 1,53,485 or 6·93 per cent. on establishments and Rs. 21,424 or 0·97 per cent. on tools and plant, etc.

Communications.

509. The new road connecting Mount Road with the South Beach Road was gravelled throughout preparatory to being metalled; lamp posts were fixed along the whole length of it; and the construction of the masonry bridge over the canal where this road crosses it was finished. Lands and buildings were acquired for widening roads in eleven cases, and for opening new roads to connect existing lanes and streets, in eight cases. Land was also acquired for laying out streets in the hospital plain in Avadanam Paupier Road, Chulai. A sum of Rs. 3,20,660 was spent on repairs to communications against Rs. 3,22,290 in 1910–1911. During the year 62·93 miles of road were reformed against 59·78 in the previous year; and 8 miles, 1 furlong and 123 yards of unmetalled roads were metalled for the first time. The reform of roads was done under a new system introduced by the Engineer, and the roads completed after such process presented an even and smooth surface.

Buildings.

510. The new Corporation Office buildings and the additional verandah in the inner quadrangle of the Moore Market were in progress. The new Royapettah Hospital, the subsidiary market to accommodate the evening bazaars to the east of the Moore Market, the pail depot at Ice House Road, the fire-proof building for the Corporation stores, a lethal chamber near the Basin Road incinerator, and 73 additional tenements in Vasapmode paracherri were completed. Additions and improvements were made to Raja Sir Ramaswami Mudaliyar Maternity Hospital and to the Corporation workshop and stores. Sites were acquired for four model elementary schools and building work was commenced on two of them. Lands were acquired for the construction of model huts for poor Anglo-Indians in Pudupet and of a model paracherri at Cochrane Basin Road. Ten additional incinerators were constructed for the reclamation of tanks and low lands and ten more were in course of construction. A sum of Rs. 22,198 was spent on repairs to buildings against Rs. 13,834 in 1910–1911.

Drainage.

George-town.

511. The pumping station opposite to the Law College, the laying of the 16-inch cast-iron main from that station to join the delivery main from the Rāyapuram pumping station, and the erection of new buildings and pumping plant at the Rāyapuram station were completed; and these two pumping stations commenced to work during the year, completely removing the nuisance caused by Kelly's drain. The open channel at the Tondiarpet grass-farm was completed and the farm is now irrigated on broad irrigation methods. The laying of the new 36-inch cast-iron main under the railway lines at Rāyapuram, and the construction of a 4′ 6″ diameter brick sewer which is to carry all the sewage of Georgetown and Tondiarpet to the proposed pumping station at the grass-farm were in progress. Sewer laying in Tondiarpet was commenced and 83,015 feet of sewers out of a total length of 120,000 feet were laid by 31st March 1912. Good progress was made with the construction of silt pits, screening chambers and suction wells at the proposed three pumping stations in Tondiarpet and a contract for the supply of pumping plant for these stations was let. A general scheme for the drainage of the city was under preparation by the Special Engineer.

Tondiarpet.

Pumping stations.

Water-supply.

512. Under *special* works, the roughing filter at the intake from the Red Hills Lake was completed; three-fourths of the total length of the conduit was built; seven out of the fourteen filter-beds were finished and the remaining seven were half-finished; and good progress was made with the three filtered water tanks. The new water distribution scheme which comprises the construction of a pumping station, an elevated tank and the laying of mains which is estimated to cost 41 lakhs of rupees, was sanctioned by Government and a contract was let for the supply and erection of pumping plant at a total cost of Rs. 3,90,000. Under *ordinary* works, works costing Rs. 26,149 were executed for the improvement of the water-supply in anticipation of, but in agreement with, the general scheme. The pumping scheme for the improvement of water-supply to the first three divisions was completed and a similar scheme for Mylapore was in progress. During the year, 19,542 feet of old and worn out pipes were taken out, cleaned, and relaid or replaced by new pipes, 20,783 feet of new pipes were laid, and 23 fountains, 30 valves, 19 stop-cocks, 5 hydrants, 22 meters and 34 pumps were fixed. The quantity of water supplied to the City was 683,839,962 cubic feet against 638,226,135 cubic feet in 1910–1911. The cost of maintenance of water-supply was Rs. 52,341 against Rs. 49,801 in the previous year.

Relief of congestion.

513. Lands were acquired for opening streets in three hutting grounds and for opening streets to connect existing streets in nine cases.

Education.

514. During the year a sum of Rs. 5,307 was spent on education against Rs. 22,480 in the previous year, the decrease being due to the exemption of the Corporation from payment of teaching grants to aided elementary schools for ten years from 1911–1912 in order to enable the Corporation to complete the scheme for the construction of forty model elementary schools. The Corporation Panchama school at Chetput had, on 31st March last, 146 boys and 37 girls against 135 boys and 30 girls on the corresponding date of the previous year. Thirteen teachers were trained during the year and six others were undergoing training. The stipends paid to them amounted to Rs. 1,212.

Sanitation and Medical Services.

515. The cost of the maintenance of the Corporation hospitals and dispensaries amounted to Rs. 54,677 against Rs. 49,974 in 1910–1911. The total number of patients treated in them was 157,940 against 162,378 in the previous year. The usual contribution of Rs. 20,000 to Government on account of hospitals and contributions to other medical institutions aggregating Rs. 6,070 were paid.

Vaccination.

The total number of cases vaccinated in the city was 38,261 against 46,105 in 1910–1911. The percentages of success in primary vaccination and re-vaccination cases were 97·60 and 58·08 respectively, against 97·32 and 50·61 in the previous year.

Births and deaths.

The number of children under one year vaccinated was 20,814 against 22,437. The numbers of births and deaths registered in 1911 were 19,735 and 21,771 against 19,340 and 20,312 respectively in 1910. The birth and death rates were 38·3 and 42·0 per mille against 37·9 and 39·8 per mille, respectively, in 1910. The city continued to enjoy immunity from plague, there having been only three imported cases of plague.

Conservancy.

A sum of Rs. 3,47,566 or 9·42 per cent. of the total expenditure was spent on conservancy against Rs. 3,65,753 in the previous year.

Miscellaneous.

516. Electric incandescent lamps were installed in Body-Guard road and a few more important junctions of roads. The total number of arc and incandescent lamps lighted during the year was 224.

Lighting.

In addition to these 5,941 oil lamps and 53 power lamps were maintained. The lighting charges amounted to Rs. 88,472 against Rs. 1,02,369 in 1910-1911.

Parks.

The public parks—People's Park, Napier Park, Robinson Park and Loane Square—were maintained at a cost of Rs. 29,419 against Rs. 28,234 in the previous year.

Fire-engines.

The total cost of maintenance of steam and hand fire-engines was Rs. 8,304 against Rs. 7,184 in 1910–1911. A motor fire-engine was purchased during the year for Rs. 17,200. The engines were requisitioned for 20 fires against 13 in 1910–1911.

MILITARY (VOLUNTEERING). (1911–1912.)

517. During the year the total strength of the twelve Volunteer Corps within the Ninth (Secunderabad) Division was 7,650. Of this number 3,839 were efficient and 3,811 extra-efficient against 4,465 and 3,309 respectively in 1910–1911. The new armoury, drill hall, offices and institute for the use of the Bangalore Rifle

Volunteers was completed in the year under review. A company of the 1st Battalion of the Madras and Southern Mahratta Railway Rifles stationed at Jalarpet under Captain M. M. le Marchand were called out to assist the civil authorities at Tiruppattūr in the North Arcot district on the 1st January 1912 on the occasion of the religious disturbances that arose there between the Hindus and the Muhammadans. The detachment, which was just in time to prevent a serious breach of the peace, rendered invaluable service in suppressing the riot. Their expedition in answering the call for assistance and the excellent spirit shown by them received the warmest commendation of Government.

MARINE. (1911–1912.)

[*Report on the Madras Port Trust and the Madras Port Department for 1911–1912; Statistics of British India, Part VIII—Local Funds.*]

Madras Port Trust.

General.

518. The year showed further progress in the Port's practical development. An important feature of the year was the proof by experience that the alteration of the form of the harbour permitted the construction of quays at which vessels can lie and work all the year round. The export trade expanded, and the quantity of produce brought by rail into the harbour for direct shipment exceeded all figures previously recorded. The receipts of the Trust from all sources, including the grant contributed by the Government Port Fund, were Rs. 10,51,017 in the year under review, against Rs. 10,57,449 in 1910–1911. The excess of receipts over expenditure on Revenue account in the past six years has been Rs. 18,94,628, of which Rs. 2,08,500 are ascribable to Port Fund surpluses made over to the Trust by Government. If the items of interest on the one side and the grant of Port Fund surplus from Government on the other be eliminated, the share of regular harbour earnings required for actual working expenses was about 45 per cent. Vessels of all sorts, to the number of 600 with an aggregate tonnage of 1,630,340 tons, paid for port dues Rs. 37,922, for mooring fees Rs. 54,180 and for pilotage fees Rs. 36,440, total Rs. 1,28,542, or at the average rate of As. 1·26 per ton registered. If this charge be considered as falling on the tonnage of exports and imports dealt with at the port, viz., 606,325 tons, the incidence of all these charges, covered in the cost of freight, amounts to As. 3·4 per ton. About 285,000 tons of goods handled by the Trust paid for services rendered Rs. 6,87,000 or at the rate of Rs. 2·41 per ton. This covers all charges between ship and wagon except lighterage, which costs about one rupee per ton.

Finance.

Port and harbour dues.

Works.

519. By the end of the year, the whole of the loan raised under the sanction of Government, viz., Rs. 39,43,000, had been drawn, together with the whole of the 20-lakh grant under the same sanction. Soon after the close of the year, a completion report having been prepared of all expenditure incurred against the sanctioned estimate up to the 31st March 1912, a separate estimate was made for the remaining expenditure, Rs. 79,203, to be incurred in 1912-1913. In compliance with the desire of the Port Trustees, Government have consented to allow the harbour alteration loan and the balance of the old pre-existing loan to be amalgamated for amortisation purposes, and to be paid off by equated monthly payments of principal and interest at the rate of Rs. 32,000 per mensem, the payments to end on the 15th July 1952. It was decided during the year, instead of sinking to half their depth the wells intended to form a coal lighter-wharf, to sink them at once to the full depth of 50 feet, in order to permit ships to come alongside in 26 feet of water at low-tide—hence the new name of ship quays instead of coal wharves. Of the 20 wells sanctioned, 13 were completely built and sunk to their full depth of 50 feet, and the remaining 7 were partially built and sunk at the close of the year. At the end of the year 750 lineal feet of the ship quay at the western harbour face were approaching completion, and it is anticipated that the new quay, nearly one-third of the entire length contemplated, will be ready for use by vessels by the end of 1912. There now remains no "beach" within the limits of the harbour fit for use by the old-fashioned, and now vanishing, masulah boats. An estimate was under preparation at the end of the year for completing the entire length, 3,000 feet, of ship quay from north to south of the harbour, and the proposal to raise a loan for this and other works was being considered by the Port Trustees,

Harbour alteration.

Ship quays.

the two Chambers of Commerce and the Trades Association. During the last few months of the year the new north-beach export shed and lighter-quay proved of marked utility in dealing with the advancing export trade of the port. At the same time, much consideration was given to the question of an improved and enlarged harbour railway station, and it was decided that the Trust was prepared, subject to certain conditions, to offer to surrender to Government a considerable area of the land that now vests in it, for a station to accommodate (*a*) the harbour metre gauge goods traffic of the South Indian Railway, (*b*) the passenger traffic of both the South Indian and the Madras & Southern Mahratta Railways, (*c*) the harbour metre goods traffic of the Madras & Southern Mahratta Railway that may result, hereafter, from bringing the metre section of that system into Madras, and (*d*) the local-booked city goods traffic of the South Indian Railway. The area of the intended station site is 36 acres. At present the daily average number of passengers at the beach station is over 2,000, while the annual parcels and goods traffic amounts to Rs. 9·87 lakhs, and the need for enlargement is unquestionable. The daily outturn under the head of dredging showed a large increase, the increase in the volume of water within the harbour arms at Indian spring low water having been 4,420,000 cubic feet between January 1911 and January 1912. The excess, in comparison with former years, was due partly to the dredger "Madras" working inside the harbour for a greater length of time than in previous years and partly to the dredger "Triton" working exclusively inside the harbour, instead of at the new entrance. A new high-level water-tank with a capacity of 40,000 gallons has been erected and has proved a success. The maximum of water supplied to shipping during 24 hours was 74,000 gallons against 35,000 gallons supplied in the previous year in any one day. The greatest quantity supplied from the new tank to one vessel was 40,000 gallons to the troop ship "Dufferin" on the 27th March 1912.

Harbour railway station.

Dredging.

Water-supply.

Trade.

520. The importance of the trade of a port is not always to be measured by its tonnage. But if tonnage is taken as a rough criterion, a comparison may be made between the trade of the year 1911–1912 and that of the eight-year period 1904–1912. Under *Imports* the total tonnage handled was 447,000 tons, which was considerably less than the 509,000-ton average for the eight-year period, and nearly one-third less than the figure for the best year of the period. But if the disturbing factor of coal be omitted, the import tonnage of the year, 353,000, was almost exactly the average figure for the period. Of the more important articles of import the only ones which showed a marked improvement in weight as compared with the eight-year average were kerosine, metals, timber, piece-goods, vegetables, and sugar. The total *Exports* were about 23 per cent. in excess of the average, viz., 159,000 tons in 1911–1912 as compared with 129,000 tons in the eight-year period. The principal items showing improvement were seeds and nuts, chiefly ground-nuts or earthnuts, which were 150 per cent. in excess of the eight-year average. Provisions, oil-cake and turmeric improved by an appreciable percentage. But many other of the chief articles of export dropped in weight. Omitting Treasure and Government consignments, the value of the private trade of the year under review, 1,917·56 lakhs, was about 15 per cent. better than the average, 1,668·57 lakhs, for the eight-year period. The total value of the private trade for the year was 1 crore more than that of the best year experienced heretofore. The figures show that the trade of Madras is improving at the rate of about 2 per cent. per annum.

Imports.

Exports.

Value.

Minor Ports.

521. During the year the provisions of the Indian Ports Act XV of 1908 were withdrawn from six minor ports at which the trade was inconsiderable. The total trade of the minor ports again rose from 28·08 crores to 30·06 crores, the relative order according to volume of trade of the first six ports being Tuticorin, Cochin, Cocanada, Calicut, Cuddalore and Negapatam. Dredging was carried out at Cocanada, Cuddalore, Negapatam and Tuticorin.

General.

Shipping.

522. During the year 19,673 vessels with an aggregate tonnage of 8,123,143 tons entered the minor ports of the Presidency against 19,836 vessels with a tonnage of 8,496,533 tons in the preceding year. The tonnage that actually paid dues was 30·75 per cent. of the tonnage that entered. The port dues collections for the year were Rs. 3,85,090 against Rs. 3,76,390 in 1910–1911. In all 565,288 passengers arrived and departed at the various ports. Of these 510,984 arrived and sailed at the sixteen principal ports against 541,340 in the preceding year. The

Passenger traffic.

largest traffic was at Tuticorin. The amount of the coast light dues collected during the year was Rs. 1·38 lakhs against Rs. 1·40 lakhs in 1910–1911 and Rs. 1·64 lakhs in 1909–1910, the steady decrease being due to the reduction in rates from 1st December 1909. The coast lights were maintained efficiently and were exhibited without interruption during the year. Incandescent burners have been fitted at three more coast lights, Kaph, Tangachery and Havelock Point during the year, thus bringing the number so equipped up to ten. One hundred and eleven vessels with an aggregate tonnage of 5,125 tons were registered and 176 changes of masters endorsed on registry certificates. The largest number of vessels registered was at Mangalore. The weather was fine and normal throughout the year in all the ports with the exception of Gopalpur, Calingapatam and Tellicherry where cyclonic storms were experienced in September and November. The total number of wrecks and casualties reported was 29 against 25 in the preceding year. Only one life was lost and this occurred from a native craft at Cochin. The loss of cargo and loss or damage to vessels amounted to Rs. 16,503 and Rs. 19,100 respectively. Forty-five notices to mariners were issued during the year. The closing cash balance at credit of the Minor Ports Fund, Minor Pilotage Funds, Landing and Shipping Funds and the Madras Coast Lights Fund was Rs. 2,81,165, Rs. 1,859, Rs. 1,12,093 and Rs. 39,858 respectively.

Coast lights.

Registration.

Weather.

Wrecks.

Funds.

MISCELLANEOUS. (1911.)

523. The total number of licences under the Arms Act during the year was 53,199 as against 56,539 in the preceding year. There was a decrease of 6,252 in the number of licences in Form XVI for the possession of arms and ammunition and for going armed for purposes of sport, protection or display, which occurred mainly in the districts of Malabar (2,957) and Chingleput (1,864) and is attributable, in the former district, to the substitution of licences in Form XVIII, and, in the latter, to the exercise of a closer scrutiny in the renewal of old licences. As in former years, the arms for which the greatest number of licences were in force were single-barrelled muzzle-loading percussion guns, the total number in the possession of licensees being 39,599 as compared with 43,486 in 1910, the largest number being held in the districts of Malabar (5,538), South Canara (4,248), Salem (3,351), and South Arcot (2,640). The number of licences issued under the Explosives Act during the year was 12,144 as against 3,874 in 1910. The large increase is accounted for by the fact that, in consequence of the cancellation of Rule 32 of the Arms Rules, licences for the possession of explosives intended for blasting purposes ceased to be granted under those Rules and were issued in Form E under Rule 14-A of the Explosives Rules. Licences in this form were chiefly in demand in the districts of Coimbatore (5,655), Madura (1,662), and Trichinopoly (1,428) where they were issued to ryots in connection with the blasting of wells. Compared with the preceding year the inspections of licensed shops by the police and the Magistracy were, on the whole, satisfactory. There was a decrease from 1,318 to 1,058 in the number of prosecutions instituted for breaches of the provisions of the Indian Arms and Explosives Acts and the rules framed thereunder. The percentage of convictions (87 per cent.) remained practically the same.

Arms and Explosives.

524. The number of licences in force in respect to sulphur rose from 227 to 238, but the quantity for which licences were obtained was only slightly over 483 tons as compared with 579 in 1910. Licences for quantities markedly in excess of requirements were taken out in Malabar, Kistna and Coimbatore. In the Nilgiris there is still a large surplus stock with the licensees for which apparently there is no demand. Sulphur was used in the Presidency chiefly for the manufacture of gunpowder and fireworks and partly also for the manufacture of sulphuric acid and for medicinal and sanitary purposes. There was also some demand for it in Malabar and South Canara for bleaching cardamoms.

Sulphur licences.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

AGRICULTURE. (1911–1912.)

[*Reports on the operations of the Agricultural, Civil Veterinary and Pumping and Boring Departments, Madras Presidency, for the official year 1911–1912 (G.Os. Nos. 2478, 2486 and 1783, Revenue, dated 17th August, 19th August and 17th June 1912).*]

Staff.

525. Mr. M. E. Couchman, I.C.S., who held charge of the office of Director of Agriculture since the reorganization of the Agricultural Department in 1905–1906, finally severed his connection with it and proceeded on one year's furlough in August 1911, and Mr. G. A. D. Stuart, I.C.S., was appointed Acting Director of Agriculture. Mr. H. C. Sampson was, on return from leave, placed on special duty for eight months for conducting a cattle survey of the Madras Presidency.

Agricultural Stations.

Northern Circle (Bellary).

526. During the year one new agricultural station was sanctioned in the Northern circle at Anakāpalle in the Vizagapatam district. The agave plantation at Hindupur and the farms at Bezwada and Bellary were ordered to be abandoned, as the soils were found unsuitable for experimental purposes. The season was unfavourable at Hagari and Bellary, while at Nandyal and Samalkota it was on the whole favourable. During the year 44,115 lbs. of cotton seed were distributed from Bellary, Hagari and Nandyal farms and from depots in the Kurnool district. No seed was left unsold, the demand being greater than the supply. Altogether 2,560 lbs. of Cambodia cotton seed were distributed in the circle, mostly from Hagari and Nandyal farms. The demand for red Mauritius cane was small in Gōdāvari as the delta is now practically wholly planted with this cane. For the main crop season of 1911–1912, 14,588 lbs. of good paddy seed were distributed, and for the main crop season of 1912–1913, 21,600 lbs. have already been distributed.

Southern Circle (Trichinopoly).

527. Agricultural stations were maintained at Palur, Koilpatti and Taliparamba. An additional station at Manganallur in the Tanjore district has been sanctioned. The area under drilled crops in Tinnevelly district increased to 3,605 acres. The demand for pure Karunganni seed from the seed farms was very great, and the whole quantity available 94,908 lbs.) was disposed of early in the season. During the year 30,520 lbs. of pure Cambodia seed were sold.

General Results.

Sugarcane.

528. The area under red Mauritius sugarcane near Nellikuppam in the South Arcot district again increased, and the sugar industry in that district is reported to be on a firm basis and capable of great expansion. In Malabar the red Mauritius sugarcane is being replaced by Barbados No. 208 which is stated to be better suited to West Coast conditions. The improvement in the quality of Karunganni cotton still continued.

Paddy.

The practice of single seed planting of paddy was increasingly popular, especially in the southern districts of Tanjore, Madura, Trichinopoly, South Arcot, Coimbatore, Malabar and Chingleput.* The Director has estimated the saving in seed alone which would result from the universal adoption of single planting of paddy at a crore of rupees per annum.

Green manure.

The Agricultural department endeavoured to supply the demand for green manure seeds which was heaviest in Tanjore and Madura. The prices at which the seed was sold were so fixed as to realize a profit of about 10 per cent. over the market price, thus leaving room for private enterprise.

529. The number of students at the Agricultural College, Coimbatore, at the commencement of the session was 50, 12 of whom were in their third year, 18 in their second year, and 20 in the first year. Of the 12 students in their third year 10 obtained the final diploma, while 14 passed out of the 16 second-year students who were examined for the first part of the diploma. Two tours were made with senior students, one in the West Coast districts and one in the Telugu countries. **Agricultural Education.** Coimbatore College.

530. The Agricultural Chemist and his Chief Assistant completed their joint research on the black cotton soils of Madras, and the results will shortly be published. Researches were continued on the gases evolved from land occupied by paddy crops and the results so far attained will probably have an important bearing on the question of the manuring and irrigation of paddy. The experiments with chemical manures generally confirmed previous results. The Government Botanist was engaged in research work with reference to sugarcane and Cambodia cotton. In the case of the latter it is hoped by careful analyses of the several characters exhibited by various crosses to discover the Mendelian characters and so evolve a plant possessing those characters which are specially desirable in a field crop. The three Entomological Assistants continued to work under the Government Botanist, who was assisted also by the Imperial Entomologist, and researches into the life history of various insect-pests were continued and ryots were instructed whenever possible as to simple means of combating these pests. The Madras Mycologist was mainly engaged with the bud rot disease of palmyras in the Gōdāvari and Kistna districts. The disease has appreciably abated in the Kistna district. It was found that cholam smut could be successfully combated by the use of a copper sulphate steep for the seed at a cost of about one anna per acre sown. Other fungus diseases were investigated. Operations in sericulture were continued. **Scientific Research and Experiments.** Chemistry. Botany. Entomology. Mycology. Sericulture.

531. Twenty-four leaflets were issued by the department during the year in addition to the Agricultural Calendar and two bulletins. The amount of correspondence between the department and literate ryots grows steadily larger. Cattle-shows were held at Ongole and Tiruppur during the year. **Miscellaneous.**

532. The total strength of the Madras Veterinary College during the year was 51. Out of the 19 students who were studying in the final class, 17 presented themselves for examination and 13 graduated. The percentages of successful candidates in all the three classes were markedly higher than in the preceding year. A large number of matriculates and satisfactory school final certificate holders sought admission into the College in January 1912. Considerable difficulty was found last year in securing this class of candidate. **Civil Veterinary Department.**

533. As in last year there were 19 Veterinary hospitals, excluding the Madras Veterinary Hospital. The total number of in-patients and out-patients admitted during the year was 20,252 as against 20,996 in the preceding year. Including 4 Veterinary Assistants who resigned their appointments there were 3 Veterinary Inspectors and 63 Veterinary Assistants employed during the year, of whom 45 were itinerating assistants. Nine Veterinary Assistants were newly appointed during the year, the number including 7 graduates of the Madras Veterinary College. The number of inoculations against rinderpest fell from 21,080 in 1910–1911 to 13,058, the decrease being connected with the decline in the disease. **Hospitals.** **Staff.**

534. There was a considerable fall in the number of cases of cattle mortality due to rinderpest, the number in 1911–1912 being 10,572 against 24,435 in the preceding year. The decline seems to be to some extent attributable to the early presence of Veterinary Assistants at the seats of outbreaks and to the preventive measures adopted by them. With regard to anthrax the endeavour to confirm the accuracy of the number of deaths reported from the disease by microscopical examination of specimens proved inconclusive and special enquiries are now being instituted on the point. **Epidemics.**

535. Three Government stallions remained at the end of the year. These were stationed at Tiruppur, Kangayam and Palni, and 114 mares were covered as against 172 in the preceding year. There were 19 breeding bulls at work at the close of the year. **Breeding operations.**

Pumping and Boring.

536. During the year 34 new pumping plants and 16 industrial plants were completed by the Pumping and Boring Department, and information was received of 39 pumping plants erected by ryots or landowners without departmental assistance, but, as the list maintained by the department is necessarily incomplete, it is probable that a considerably larger number have actually been started. Up to the end of the year 261 pumping stations had been erected by the department and 114 by private agency, making a total of 375 pumping stations since 1903. Fourteen loans amounting to Rs. 36,500 were granted under the Land Improvement Loans Act. There was a further decrease in the number of owners who applied for the periodic inspection of their plant, and this independence of departmental control although sometimes leading to losses owing to ignorance seems to indicate a growing spirit of private enterprise. The initial cost of motors and pumps is still very high and deters the majority of ryots; but allowing for repairs, renewal, interest and depreciation on the capital outlay the cost of lifting water by mechanical means is considerably less than when cattle are employed. There is an enormous demand in India for any mechanical pumping device within the means of the ryot to purchase and work. At the beginning of the year the Boring Department was reorganised and a new system adopted of checking the work turned out by the boring maistries. In consequence, with the same establishment at work the total length of the bore holes put down increased from 8,243 feet to 15,100 feet. The total number of borings put down was 347, of which 244 were started from the bottom of existing wells and 103 from the ground level. Of these borings 203 were successful. Fourteen borings were put down for purposes unconnected with water-supply and the cost of the work was recovered. During the year the scale of fees levied by the department was revised, the charges for boring work being increased and the initial deposit required with an application for a boring being raised from Rs. 3 to Rs. 20. The number of applications during the three months of the year in which the revised scale was in force were still in excess of the capacity of the department. With a view to efficiency work has been concentrated in certain areas. The fees recovered for boring work amounted to Rs. 6,887 as against Rs. 1,647 in the preceding year. As the Calyx drill purchased for the department last year did not prove satisfactory, sanction has been accorded to purchase a Keystone drill working on the percussive principle, and it is hoped that this will prove a much cheaper method of boring. A Keystone drill was purchased by the department two years ago for the Zamindar of Devarakota and proved so successful that the ryots of Yellakuru have between themselves subscribed a sum of Rs. 5,600 and purchased a 4-inch Keystone drill with which they have put down a bore-hole to a depth of 230 feet. As a result of the department's example 19 oil-engine-driven rice-pulling installations were set up during the year. Other industrial plants included 3 ginning factories, one oil-mill and one sugarcane crushing plant. The total receipts of the department rose from Rs. 5,987 to Rs. 14,461 and the net expenditure after deducting receipts fell from Rs. 60,311 to Rs. 48,598.

Pumping.

Boring.

WEATHER AND CROPS.

(Fasli 1321—1st July 1911 to 30th June 1912.)

[*Season and Crop Report for the agricultural year 1911–1912—Agricultural Statistics of British India; and Area and Yield of certain principal Crops in India.*]

Rainfall.

South-west monsoon.

537. The south-west monsoon was on the whole unfavourable. During the three weeks ending 24th June 1911 the rainfall was very heavy in the West Coast, good to heavy in the Circars and the Hills, but elsewhere it was generally light. In July the rainfall was below the average everywhere, except in Kurnool, Bellary, Coimbatore, Tinnevelly and the Nilgiris. The deficiency continued in August, except in Ganjām and Vizagapatam. There was considerable rain in September in some districts but the rainfall was below the average, except in Ganjām, Vizagapatam, Gōdāvari, South Arcot, Tinnevelly and the Nilgiris, and the month was marked by a destructive cyclone in Ganjām and by high floods in Gōdāvari which

damaged the crops in the river-side villages. On account of untimely or insufficient rainfall, the rain-fed paddy in Ganjām and the early crops in Guntūr, Bellary, Nellore, South Arcot and Rāmnād were not very successful. The areas under both first dry crop and first wet crops were generally below the average. The north-east monsoon, which opened with a generally deficient rainfall in October, was less unfavourable, and averages were exceeded in most districts in November and December. The late crops in Guntūr, Chingleput, South Arcot, North Arcot, Rāmnād and Tinnevelly, and tea and coffee in the Nilgiris derived much benefit from the rains of this monsoon, although parts of Vizagapatam, Bellary, Coimbatore and Malabar were less fortunate.

North-east monsoon.

538. The area under cultivation with first crops was 33,068,000 acres against a normal extent of 32,398,000 acres. The total crop area of 1911–1912 was 37,380,000 acres against the normal extent of 36,686,000 acres. The area under paddy (10,289,461 acres) exceeded the normal area by 36,083 acres, while the areas under cholam (5,166,309 acres), cumbu (3,383,565 acres) and ragi (2,448,420 acres) showed considerable deficiencies, which are attributed generally to the steady increase in the area cultivated with commercial crops.

Crops.
Food-grains.

539. The area under cotton (2,675,838 acres) exceeded the normal by 684,097 acres, the increase being marked in Madura and Kistna. The extension of cultivation is due generally to high prices and the commercial importance of the crop. The area under gingelly (887,349 acres) though greater than last year was still below the normal by 57,546 acres. The area under groundnut rose from 934,135 acres to 1,299,118 acres, or more than 450,000 acres above the normal. The increase is due to the commercial advantages of the crop, while in the case of Chittoor there was the additional reason that the ryots raised indigo and groundnuts on a large scale even on wet lands as the rainfall was neither timely nor sufficient for paddy. The areas under castors and other lamp-oil seeds (574,931 acres), under tobacco (192,205 acres), sugarcane (108,032 acres) and indigo (90,324 acres) showed, except in the case of tobacco, an increase over the figures for the preceding year.

Commercial Crops.

540. The outturn of paddy was 58 per cent. of the normal in Vizagapatam, 85 per cent. in South Arcot, 87 per cent. in Trichinopoly and 92 per cent. in Coimbatore, while in the remaining districts it ranged from 67 to 83 per cent. The yield of cholam, cumbu and ragi in Vizagapatam was 50 per cent. The yield of varagu in Tinnevelly, of castors, other oil-seeds, horse-gram, indigo and groundnut in Vizagapatam and Tinnevelly, of cumbu in Anantapur, of other cereals in Chingleput, of other oil-seeds in Kurnool and Chingleput, and of gingelly in Tinnevelly was below 50 per cent. of the normal, while in the remaining districts and under the remaining crops the outturn ranged from 50 to 94 per cent.

Outturn.

HORTICULTURE. (1911–1912.)

[*G.O. No. 1914, Revenue, dated 25th June 1912; Report of the Agri-Horticultural Society of Madras, April 1912.*]

Government Botanical Gardens and Parks, the Nilgiris.

541. The weather throughout the year was unusual, and severe hail-storms in April and May did considerable damage. Both monsoons were favourable, and the last three months of the year were remarkable for the mild weather experienced. The raising of eucalyptus plants for the Forest Department was continued and during the year 48,878 plants were supplied. The results of the experiments in flax growing at Ootacamund have justified preparations to grow flax on a much larger scale in order to determine whether it will be worth the while of cultivators in the Nilgiris to take up flax growing. The experiments in potato-growing were on the whole somewhat less promising. Various minor improvements were effected in the Ootacamund lake margin, and a cypress hedge was planted and unsightly trees were removed. A channel is being made to supply the

Kullar garden with water. Sim's Park has been further improved, and the turf, which suffers from the heavy rainfall washing over a steep surface, has received increased attention. The mangosteen crop at Burliar was not so good as last year, the total value of the fruit being only Rs. 110. The growth of the rubber trees at Burliar and Kullar gardens was satisfactory, and 70 lbs. of dry rubber, which were sold at a net profit of Rs. 236, were obtained.

Finance.

542. Receipts again fell from Rs. 6,231 to Rs. 5,313, and expenditure also slightly fell from Rs. 31,023 to Rs. 30,649. The most noticeable decrease in the receipts occurred under the head " Tree, flower and other seeds," the sale-proceeds being only Rs. 852 against Rs. 2,117 in the year 1909–1910.

The Agri-Horticultural Society, Madras. (1911.)

543. The season on the whole was not a particularly good one for gardening. The rainfall was erratic and insufficient to counteract the effects of prolonged drought. Improvements and alterations have been made in the ornamental gardens at Mount Road, and the addition to the gardens of a piece of land next to the New Road, north of the nursery, is contemplated. There was no demand for rubber-producing plants or sisal aloe. It is reported that the production of fibre from the sisal aloe leaves too small a margin of profit to be commercially feasible. Only 18 new varieties of plants were introduced into the gardens during the year. The work of supplying specimens for educational purposes has considerably increased, as also has correspondence relating to enquiries with reference to the cultivation of rubber, fodder plants, fibres, shade and fruit trees, green manures and chemical manures. Considerable additions were made to the Society's Library during the year. The Society's 72nd Flower Show was held in February 1911.

Finance.

544. The gross receipts of the Society during the year, including the Government grant of Rs. 4,000, were Rs. 23,582. A sum of Rs. 10,078 was realised from sales, and members' subscriptions amounted to Rs. 3,182 as against Rs. 2,875 in the preceding year. The number of ordinary members at the end of the year was 151. Expenditure amounted to Rs. 21,344 and the year closed with a balance of Rs. 2,238.

Cinchona Plantations.

545. At the close of the year the total area under cultivation in the three estates was 1,193·15 acres of cinchona and 559·12 acres of fuel trees. The south-west monsoon was exceptionally heavy and was accompanied by high winds which did some damage to the older trees. The north-east monsoon failed and the prolonged drought from November to the end of March proved fatal to a large number of young Ledger plants in the Moyar extension. During the year 65·52 acres of old cinchona were uprooted and 1·43 acres of new land were planted, reducing the area under cinchona by 64·09 acres. The additions to the area under fuel were 103·75 acres. The average age of the trees on the area uprooted was 42 years, and the total yield of dry bark calculated per acre per annum from the commencement of planting to the final harvest was an average of 283 lbs. The total bark crop from the estates during the year was 402,494 lbs. as against 214,797 lbs. last year. The expenditure on the plantations was Rs. 59,904. Compared with the preceding year's expenditure there was a saving of Rs. 4,818, which was chiefly due to the fact that practically no extensions were made during the year.

Quinine Factory.

546. The total quantity of bark worked up during the year was 755,900 lbs. consisting of 129,363 lbs. of estate bark, 372,793 lbs. purchased in the local market, and 253,744 lbs of Java Ledger bark. The total quantity of quinine extracted was 30,489 lbs. or 4·03 per cent. against 3·63 per cent. last year, the increased yield being chiefly due to improvements in manufacture. More machinery has been installed during the year and other new machinery has been ordered from which measures a further improvement in the yield of quinine is expected. With the allowance of Rs. 4,053 for depreciation of machinery the cost of manufacture was 11·04 pies per pound against 10·3 pies last year. The total cost per pound of quinine manufactured during the year was Rs. 7–6–8 as against Rs. 8–11–2 in the previous year. The decrease is due to the improvement in the outturn and to decrease in the initial cost per unit. The quinine was sold to Medical Stores at Rs. 8–8–0 per pound, and for other supplies the rates varied from Rs. 8–8–0 to Rs. 11 per pound according to the quantity ordered. No febrifuge was manufactured during the year.

547. The sales during the year were 33,566 lbs. of quinine as against 27,686 lbs. in last year, the increase being due to larger demands from the Medical Stores of Madras and Bombay and from the United Provinces. The quantity of febrifuge sold rose from 1,444 lbs. to 2,089 lbs. The quantity of quinine sold at post offices during the year rose from 2,181¾ lbs. to 2,465 lbs. The amount sold by revenue officers remained practically the same as in the previous year (27 lbs.). Issues.

548. The profit and loss account showed a profit of Rs. 76,909, mainly as the result of the increase of Rs. 1,22,819 in the value of stock at the end of the year. The gross value of stock at the end of the year was Rs. 7,62,445. Finance.

FISHERIES. (1911–1912.)

[*G.O. No. 2638, Revenue, dated 3rd September 1912.*]

549. Sir Frederick Nicholson, K.C.I.E., continued to be Honorary Director of the Fishery Department. The work of preparing sardine oil and guano was moved from Cannanore where fish are not very abundant to Tanur (near Calicut) which is the largest fishery centre in Malabar. The canning experiments also were transferred from Cannanore to Calicut where there are many artisans skilled in metal work and several metal workshops. These changes have rendered the work of supervision more easy and expeditious. The experiments conducted in the manufacture of sardine oil and guano have resulted in establishing the industry on a firm basis and the large catches of sardines for which the West Coast is well known can now be converted into valuable oil and manure of a high fertilising value, whereas under the crude methods formerly employed a worthless manure deprived of all useful constituents was the sole product. The experiments in light curing, salting and pickling of fish were attended with marked success. Canning operations were started at Calicut with encouraging results, and fish-pastes and fish-powders prepared. By next season the station will be prepared to train students and publish its recipes. The number of private factories for the production of sardine oil and guano has risen from 2 in 1909 and 9 in 1910 to 45 in 1911. These factories confine themselves at present to the production of crude brown oil on the methods initiated by the department. This oil finds a ready market in the jute industry at Calcutta. As the sardine oil and guano industry is now firmly established the department has transferred its attention to the preparation of refined deodorised oil for which there is an immense and better priced market and the experiments have shown promising results. **Experimental Stations.** Effects on private enterprise.

550. The experiment in oyster-culture at Pulicat was successfully continued in spite of vicissitudes due mainly to the excessively low water of the lake by reason of drought, and a fine batch of mature cultivated oysters is expected to be ready by midsummer, that is, within 21 months from spat-fall to maturity. The chank fisheries off the Tinnevelly coast were conducted under conditions of unusual difficulty arising from unfavourable weather and a short supply of labour. It is hoped that it will be possible to revive the manufacture of bangles and other ornaments from chank shells, which was once a flourishing industry in Tinnevelly as is shown by the specimens of chank workshop waste found in the debris marking the long deserted sites of ancient cities. Trout have been completely established in the higher waters of the Nilgiris and the fisheries were opened to anglers at the end of August 1911. Many fish, the largest weighing 5½ lbs., were taken. The conservation of the upper waters of the Moyar and Bhavāni was continued and illegal practices were successfully checked. On the plains the fish farm at Sunkesula (Kurnool) was brought to practical completion; and a scheme has been drawn up for marketing the surplus fish in the town of Kurnool. New and large fish-farms are projected in the Kolair Lake, with a special view to the breeding of hilsa, and at Allūr in the Nellore district. Several large tanks have been stocked with fish by the department. **Pisciculture.** Marine. Fresh water pisciculture.

Scientific Research.

551. Investigations were carried out by Mr. Hornell, Superintendent of Pearl and Chank Fisheries, upon the anatomy and identity of certain fish-parasites, a subject intimately connected with the problem of pearl production; an account of three new species which were found and of a new genus which had to be created for one of these has been published under the title of *New Cestodes from Indian Fishes* in the "Records of the Indian Museum" for 1912. Specimens were supplied to research workers at Oxford, the British Museum and Calcutta. Observations at the Sunkesula fish-farm have established new facts with regard to the ova of the murrel (*Ophiocephalus punctatus*). Proposals have also been submitted to Government for the construction of a complete and modern Aquarium and Marine Biological Station at Madras.

FORESTS.

(FASLI 1321—1ST JULY 1911 TO 30TH JUNE 1912.)

[*Annual Administration Report of the Forest Department of the Madras Presidency for fasli 1321; Statistics of British India, Part IV (b)—Finance and Revenue.*]

Constitution of State Forests: Area.

552. Seven square miles, chiefly in Bellary, Chittoor, Tinnevelly, South Canara and North Malabar, were constituted reserved forests during the year, while the adoption of the areas given in the Survey of India maps in Ganjām and Kurnool caused a reduction of 34 square miles and about 1 square mile was disafforested. These changes resulted in a net decrease of 28 square miles in the total area of reserved forests which stood at 18,601 square miles at the close of the year. The area of reserved lands decreased from 1,401 square miles to 838 square miles, the reduction in area being due mainly to the exclusion of 540 square miles of forests in the Nugur taluk, Gōdāvari district, which were erroneously shown as reserved lands last year.

Settlement.

553. An area of 523 square miles, notified under section 4 of the Forest Act, remained to be notified under section 16 of the Act at the end of the year. The settlement of 392 square miles has been practically completed, leaving a balance of 131 square miles still to be done. The settlement work was effected, as in the preceding year, by Revenue Divisional Officers. The Special Deputy Collector appointed to revise the boundaries of some of the existing reserves in Madura continued his work throughout the year, while the officer appointed for the Kollegal division completed his task in December 1911. It is proposed to extend the term of the former by another two years in order to enable him to investigate the boundaries of the reserves in the Kodaikānal range.

Demarcation.

554. The total length of boundaries at the commencement and close of the year was 37,716 and 37,385 miles, the decrease being due to the rectification of figures wrongly reported in previous years. A length of 522 miles was newly demarcated during the year against 549 miles in 1910–1911, leaving 646 miles, chiefly in Madura, South Canara, North Malabar and North Coimbatore, still to be demarcated. The length of old boundaries repaired during the year was 17,583 miles, which was less by 4,642 miles than the total in the preceding year, and the length of boundaries cleared free of cost by subordinates declined from 18,678 to 10,293 miles. Exclusive of the 171 miles of boundary lines between zamindari dupati lands and Government unreserves in Bhadrāchalam, surveyed and demarcated at a total cost owing to special conditions of Rs. 15,771, the average cost per mile of fresh demarcation decreased from Rs. 29–9–8 per mile to Rs. 24–6–3, while the cost of repairs fell from Rs. 4–12–10 to Rs. 2–8–3 per mile.

Surveys and Maps.

555. The Survey of India, Party No. VII, carried their work in South Canara to completion. The maps of some reserves have, however, not yet been published. The Survey of India, Party No. VIII, resurveyed 9 square miles of the Anamalai reserved forest. The special establishment sanctioned for the dupati survey completed 65 villages in addition to the 30 finished in the preceding year and at the end of the year there still remained 68 small villages to be surveyed. It is anticipated that the work will be completed by the end of December next. A

consolidated map of the teak plantations in South Malabar was prepared and printed at the Madras Survey Office. As usual, the departmental surveyors did miscellaneous work, such as survey of coupes, alignment of roads and fire lines and verification of boundaries and preparation of stock and working plan maps. In Guntūr a detailed stock survey of over 29 square miles was made with a view to the preparation of working plans. The special forest map officer prepared the reference maps of the Nilgiris and South Malabar and part of the map of North Malabar.

Working-Plans.

556. During the year working-plans for 45 square miles were sanctioned and plans were either under preparation or revision for 2,709 square miles. More than half the area of reserved forests in the Presidency still requires attention. The annual plans of operations were generally carried into effect. Want of staff hindered the execution of works, but the extension of the contract system of fellings which has now been widely adopted will tend to remedy this defect.

Communications and Buildings.

557. Good progress generally was made during the year in the construction and maintenance of communications and greater attention was paid to the construction of rest-houses, range offices and quarters for subordinates, but there was a decline in the expenditure on roads from Rs. 5,438 to Rs. 4,473 in the Central Circle. The total outlay on roads and bridges rose from Rs 1,00,802 to Rs. 1,44,618 and that on buildings from Rs. 1,48,552 to Rs. 1,95,918. The tramways in Nellore and South Coimbatore were slightly extended and worked at a profit. The plant of the mono-rail in the Bandamurlanka plantation will be sold as it did not prove of much utility. Estimates for the construction of a forest tramway and road in the Tekkadi leased forests at a cost of over a lakh of rupees are awaiting the sanction of Government. The increasing cost of cart transport will probably render it necessary to substitute mechanical traction to a large extent. The expenditure under the head of miscellaneous works increased from Rs. 15,721 to Rs. 23,529, the money being spent as usual on fencing compounds and reserves, and in the construction of, and repairs to, tanks and wells.

Protection. Offences.

558. The total number of offences reported again rose from 26,489 to 29,222, or 3,477 more than the average for the preceding three years. Since only a small proportion of actual offences is ever reported the increase in the figures indicates probably only greater stringency in supervision. As compared with the figures for last year the increase occurred under all heads except "other offences." The percentages of cases undetected, compounded and taken into court to cases reported were 6·7, 74·7 and 18·6 against 6·7, 75·5 and 17·8, respectively, in the preceding year. The total number of cases disposed of by courts rose slightly from 5,023 to 5,363 and the percentage of acquittals to cases prosecuted decreased from 13·6 to 10·6. The punishments inflicted by Magistrates were generally adequate. The amount of compensation realised fell slightly from Rs. 1,69,686 to Rs. 1,69,461, although the number of cases compounded was larger. The average fee per case fell from Rs. 9–7–1 to Rs. 8–12–8.

Fire.

559. The year was a particularly bad one for fires owing to a protracted dry season and the early closing of the monsoon. The system of fire-protection adopted in most districts was the same as in previous years and consisted in the clearing of exterior and interior fire lines and patrol by fire watchers. In the North and East Cuddapah divisions the special method of burning strips of forest of varying width was continued during the year but is reported to have had little effect in protecting the forests. The total area over which special protection was attempted was 5,758 square miles against 4,536 square miles in the preceding year. Of this area 633 square miles were burnt, the percentage of failures rising from 4·1 to nearly 11 per cent. and the cost per square mile successfully protected from Rs. 22–1–3 to Rs. 22–13–1. The results were noticeably unfortunate in the Northern circle. In addition to the areas under special protection, the ordinary staff attempted to protect 9,315 square miles, of which 8,460 miles were said to have been successfully protected, but the latter figures are unreliable. The successful fire-protection of the Mudumalai forest by means of the Kurumbers was satisfactory. The number of fires rose during the year from 1,572 to 1,693 and the area burnt from 424,899 acres to 938,644 acres, the large increase in the latter figures being the inevitable result of the dry season which made the fires fiercer

and more difficult to control. There was a reduction in the area burnt through carelessness in burning fire lines departmentally. The areas burnt by the carelessness of travellers passing through the forests were large, especially in Vizagapatam, Kurnool West and Coimbatore North, but in Kurnool West the number of fires due to this cause declined from 34 to 14 and the area burnt from 65,103 acres to 29,601 acres. The number of fires and the areas burnt to obtain new grass were, as in the previous year, particularly large in Cuddapah North and East, Chittoor, Kollegal and North Coimbatore. The area maliciously fired was more than double that of last year. As in previous years, the origin of a large proportion of fires could not be ascertained.

Cattle.

560. Out of 19,439 square miles of reserved forests an extent of 2,778 square miles, or nearly 14·3 per cent. of the total area were closed to all animals throughout the year, and 277 square miles for part of the year. Goats were admitted to 788 square miles of reserved forests against 891 square miles in the preceding year. Goats alone were excluded over an area of 16,256 square miles and goats and sheep over 294 square miles. The number of cattle impounded fell further from 202,093 to 200,151 and the total number of animals admitted to grazing on payment from 3,556,009 to 3,552,777. The number of sheep and goats licensed fell by 25,172 and 70,659, respectively, while the number of cows and buffaloes increased by 190,945 and 1,211, respectively. Pending the result of the deliberations of the Forest Committee and the orders of Government thereon no progress has been made in the preparation or sanction of schemes for the regulation of grazing. This is the most pressing question in the administration of the department.

Injuries from natural causes.

561. Spike in sandal continued to spread in Kollegal and North Coimbatore in spite of the removal of diseased trees and it is hoped that the Forest Botanist, in whose programme the investigation of the disease is said to have been entered, will be able to discover the real nature and cause of this destructive pest. The teak plantations in South Malabar, which in the previous year escaped the attentions of the insect *Hyblœa puera* owing to heavy autumn rains, suffered severely from its attacks during the year under report. The pest continued to defoliate the new teak plantations in West Kurnool. The borer *Arbela tetraonis* continued its ravages in the Agastinowgam plantation in Ganjām and made its appearance in a casuarina plantation in Guntūr. In both North and East Cuddapah many trees of the species *Anogeissus latifolia* were killed by a serious attack of a boring beetle. The disease seems to be connected with the extraction of gum. The gum contracts have been stopped. The parasite *Loranthus longiflorus* attacked the Albizzias and Melias in the Perambalūr range in Trichinopoly, and the shoots of *Pterocarpus marsupium* in the ghât coppice coupes in Tinnevelly were heavily browsed by sambhur which must have an appreciable effect on the future stock.

Sylviculture.

562. In spite of the dry season natural reproduction from seedlings, especially of the more important species, was on the whole satisfactory and good wherever the conditions were favourable. The regeneration of sandal and the reproduction of red sanders from seed and coppice were both satisfactory in certain districts and reproduction by coppice was generally good in areas protected from fire and grazing. The area of plantations for the purpose of artificial reproduction was increased by 2,413 acres during the year. The additions were chiefly to the plantations of casuarina, teak, moka and pine. Cultural operations, consisting of ploughing, sowing, dibbling in seeds and putting out seedlings and cuttings of various species, were continued in all districts, but, except in special circumstances, the results are not encouraging. Generally it appears that better results would be obtained by spending the money absorbed by these operations on improved and effective protection such as fencing. The operations undertaken during the year for the improvement of growing stock consisted of improvement fellings, thinnings, fencing, creeper cutting, the removal of inferior species interfering with valuable ones, of dead and dying trees, of parasitic and noxious growth, and weeding.

Experiments.

563. The experimental cultivation of a large number of exotics was continued successfully, but the results obtained were of no great importance. Experiments

with *sesbania aculeata* proved a failure owing to drought and to late receipt of seeds. Sesbania is not a forest plant but grows luxuriantly in cultivated land with very little moisture.

564. The various methods adopted for the exploitation of major produce were, as in previous years, clear or regeneration fellings, thinnings, selection fellings, improvement fellings and coppice fellings. Casuarina coupes, babul areas, areas of mixed forests and two coupes of Karimpoya reserve in South Malabar were felled clear for the formation of plantations or for cultural operations. Thinnings were carried out in the teak plantations in South Malabar. Fuel and bamboos were also removed by this method. Selection fellings were carried out in timber coupes or where it was found necessary to eliminate dead, diseased and suppressed trees or deformed trees of better species. Bamboos were also worked by selection felling. Improvement and coppice fellings were undertaken principally in fuel coupes and in a few timber coupes and bamboo areas. Unregulated fellings under the permit system were made in unreserves; in reserves this system was confined to the extraction of bamboos and, in certain limited areas, of palmyra trees and small timber and fuel for local consumption. In Ganjām the Khonds were, as in the previous year, allowed the free enjoyment of most of the minor produce, while in Vizagapatam and Lower Gōdāvari the hillmen were allowed to collect and sell it at weekly markets to merchants and the seigniorage was collected directly from the purchasers. The collection of miscellaneous produce was generally undertaken departmentally. Permits were issued in several districts for the removal of stone, gravel and other minerals and for removal of manure leaves, of thatching grass, of thorns and of avaram bark. With these exceptions minor produce was leased out to contractors. Ryots were allowed to cut and remove grass free from reserves in 12 forest districts.

Exploitation. Major produce. Minor produce.

565. The only district in which the collection of hay was undertaken in any appreciable quantity during the year was Guntūr, but the net financial results of the operations have not been reported. It was also collected in small quantities in nine other districts. The hay collected in South Canara and South Kurnool and a portion of that collected in East Cuddapah was used for feeding Government bulls. Cattle owners in Central Coimbatore have begun to appreciate the value of hay and a demand for it has sprung up in that district.

Hay.

566. The revenue from grazing and fodder grass (Rs. 6,32,015) was much the same as that realized in the previous year, viz., Rs. 6,31,643.

Grazing.

567. The amount of timber removed during the year was 3,997,354 cubic feet, of which 782,576 cubic feet were removed departmentally, 3,002,387 cubic feet by purchasers and the balance by right-holders and free grantees. The quantity of fuel extracted rose from 22,150,426 cubic feet to 24,167,752 cubic feet, of which 12,557,893 cubic feet were removed departmentally and 11,410,384 cubic feet by purchasers. The total number of bamboos extracted departmentally was 6,672,029 and by purchasers 40,376,155. The value of minor produce including grass rose from Rs. 14,10,763 to Rs. 15,69,511, practically the whole of it being removed by purchasers. The quantity of major produce extracted and the value of minor produce collected considerably exceeded the figures of the preceding year. The advance made in the direction of the transfer of the exploitation of fuel from departmental to private agency is not fully exhibited in the statistics as the change was for the most part introduced only from the 1st April 1912 and its effects will be completely visible only after two or three years.

Agency of Exploitation.

568. The revenue of the year was Rs. 42,37,795 as against an average of Rs. 36,83,230 for the five years preceding 1910–1911, while expenditure amounted to Rs. 34,46,441 as against the quinquennial average of Rs. 28,19,403. Compared with the figures of last year the revenue increased by Rs. 4,65,855 and the expenditure by Rs. 2,27,889, Rs. 66,380 under "A. Conservancy and works" and Rs. 1,61,509 under "B. Establishment." The marked rise in the total gross revenue and the increase of expenditure during the year were due, in the case of revenue, to increased departmental operations, larger demands, the realization of better prices and the collection of various items of revenue belonging to the preceding year, and, in the case of expenditure, to larger outlay on works, communications,

Finance.

compensation for land, demarcation and fire-protection, and on establishment, due to the improvement of pay of Provincial and Imperial officers, the redistribution of districts, the opening of a third vernacular training school for foresters, and to special expenditure in connection with the organization of the Madras Forest College. The net surplus, namely, Rs. 7,91,354, exceeded that of the previous year by 43 per cent. The increased revenue of about Rs. 4,66,000 was distributed as follows :—

		RS.
(1)	Timber (both by Government Agency and purchasers) ..	1,81,000
(2)	Fuel (do. do.) ..	2,000
(3)	Bamboos (do. do.) ..	44,000
(4)	Sandalwood	17,000
(5)	Minor produce (both by Government Agency and purchasers) ..	1,51,000
(6)	Miscellaneous (do. do.) ..	71,000

After deducting capital expenditure not yielding an immediate outturn, such as that on communications, buildings, cultural operations, working plans, settlement, surveys and demarcation, amounting in all to Rs. 6,75,243, there was a surplus of revenue over expenditure directly chargeable to revenue of Rs. 15,37,420.

Administration.

569. The principal events of the year were the creation of a new Conservator's Circle and the starting of the Forest College at Coimbatore. The former change was introduced on 11th October 1911 ; the Presidency is now divided into four more or less compact divisions with head-quarters at Waltair, Madras, Trichinopoly and Coimbatore and more effective supervision by Conservators has been rendered possible. Although the Forest College was not actually started until the 1st of July, the staff was collected and all arrangements made within the year. Minor changes were the division of the North Arcot district into two charges, called North and South Vellore, and of the two divisions of Gōdāvari district into three ; effect has not, however, yet been given to the latter change for want of an officer to take charge of the new division. A scheme for the much needed augmentation of the subordinate establishment was submitted to Government and is now under consideration.

General.

570. The timber and sandalwood transit rules worked smoothly except in North Coimbatore and Gōdāvari Upper. In the former district the rules are reported not to safeguard the interests of Government sufficiently and to be potential sources of petty harassment to the people and steps will be taken to remedy the defects. In Gōdāvari Upper the rules are said to have pressed hardly on timber merchants on account of the action of corrupt subordinates, but this is a cause within the competence of the District Forest Officer to remove. The privileges allowed by the rules under section 26 of the Forest Act were generally exercised by the people and there were no serious complaints except in Vizagapatam and Gōdāvari Upper. A few complaints of lower subordinates interfering with the people were received in Kollegal and prompt steps were taken to put a stop to it. The warnings conveyed to the villagers regarding their responsibility for the protection of the forests adjoining their villages have not proved effective so far, and it is not likely that villagers will assist in the protection of the forests unless they have some personal interest in doing so. Proposals for entrusting the management of certain reserves in Chingleput, North Coimbatore and South Canara to village panchayats have been sanctioned. At the end of a year of panchayat management reports will be submitted by the local officers showing the results for the year : it will then be possible to see whether or not extension on those lines is advisable. The Andiyur forests in North Coimbatore entrusted to the village panchayat were inspected by the District Forest Officer and his report is not very encouraging. The question of abandoning unprofitable small reserves and topes now in charge of the department has not been overlooked. It is possible that the Forest Committee now sitting may have recommendations to make in this matter. The rates of seigniorage for green-leaf manure from the reserved forests were raised in the several districts so as to approximate to its real market value, with a view to put a stop to the enormous drain upon the forests caused by the removal and to

Forests under panchayats.

Leaf manure.

induce the ryots, who have been accustomed to rely upon forest leaf, to resort to the far more economical and effective practice of growing green crops on their own lands. In fixing rates full consideration has been given to the possibility or otherwise of obtaining seed in the districts concerned and Collectors have been directed to submit a report as to the effect which the enhanced rates have produced upon removal and the extent to which other forms of green manure or seed for raising green manure crops can be procured in each district. The experiments made in Guntūr, East Cuddapah, Nellore, Chingleput, Chittoor, Trichinopoly and Madura in growing *sesbania aculeata* with a view to the distribution of seed to ryots were a failure. The plants which are useful as green manure crops are such as grow well upon agricultural land with a minimum of water, but are quite unsuited to forest land and are never likely to be grown with any success on it. Every encouragement is afforded to the mining industry. The mica industry in Nellore shows signs of improvement and the market is favourable. The results of the year show an increase both in the output and in the royalty realised. A considerable extent of forest land was leased during the year to planters for coffee and tea cultivation in South Coimbatore. The number of elephants in charge of the Forest department at the close of the year was 127 against 114 in the previous year. Elephant capturing operations were very successful particularly in the Nilgiris. It was decided to reduce the large establishment of young untrained elephants as it was considered that it does not pay to keep them for more than a limited number of years before they are fit to work. It was decided that captures under ten years old as well as calves born in captivity should, as a rule, be sold. Accordingly 19 elephants were sold at auction after the close of the year and a sum of Rs. 45,695 was realised by the sales. The excellent prices realised were largely due to the excellent condition and thorough training of the animals, advantages which the buyers fully appreciate.

Mining.

Elephants.

MINES. (1911.)

[*Statistics of British India, Part I, Industrial—Mines.*]

571. Mining operations were carried on in six districts during the year and the minerals worked were graphite in Vizagapatam, manganese in the same district, magnesite in Salem, mica in Nellore and Salem, gold in Anantapur, steatite in Anantapur and Kurnool, galena and diamonds in Kurnool, and corundum in Trichinopoly. The output of graphite in Vizagapatam fell from 259 tons to 54, the decrease being attributed to the death of the proprietor of the mine. The output of manganese has increased this year from 46,441 tons to 57,293 tons, but the figures are still far below the output of 125,820 tons in 1907. The average number of workers employed daily was 2,704 as against 2,465 in the preceding year. The output of magnesite was 3,490 tons against 5,182 tons last year. The works at Suramangalam, Salem district, employed a daily average of 327 hands. The output of mica has risen from 195 to 344 tons. The mine opened in Salem district last year produced only about four tons and employed a daily average of 33 hands. All other mica mines are in the Nellore district and the increased output in that district (340 against 191 tons) is noteworthy as 60 mines only were working against 77 mines in the preceding year. In spite of the increasing depth of the quarries good deposits were found, and the market improved. The average daily number of hands employed was 2,062. Three gold mines, with a daily average of 1,110 hands, were working in the Anantapur district. One mine produced nothing; of the other two, one produced 135 oz. of gold and the other, 5,284 oz. The total output last year (from one mine) was 2,532 oz. The Muddavaram steatite mine in the Kurnool district employed daily an average of 38 persons and produced 166 tons of steatite. One mine was open at Parnapalle in the Anantapur district from the 5th November to the 20th December 1911 and employed on the average 11 persons daily with an output of two tons. Two diamond mines continued to be worked in the Kurnool district and produced two carats. They employed an average of 108 persons daily. One galena mine in the same district employing 21 persons daily

Output.

Graphite.

Manganese.

Magnesite.

Mica.

Gold.

Steatite.

Diamonds.

Galena.

Corundum Samarskite.

produced about 4 cwt. The output of corundum from one mine in the Trichinopoly district opened on the 20th September 1910 was 108 tons. The average daily number of employees was 290. Samarskite, china clay and garnet have been found in the Nellore district during the year.

General.

572. The Inspector of Mines visited 33 mines in the Nellore district and action has been taken on his recommendations. The general condition of the employees was good. Two persons were accidentally killed during the year and one was seriously injured. Women and children are reported to have been employed only on suitable work. Wages were normal. There were no prosecutions under the Mines Act.

MANUFACTURES. (1911.)

[*Statistics of British India, Part I, Industrial—Factories including Industrial Labour, Cotton Mills, Jute Mills, etc.*]

Factories. General statistics.

573. The number of factories in the Presidency coming within the scope of the Indian Factories Act (XIV of 1881) again increased during the year from 201 to 208. Of the additional number, one factory was in the Presidency town and the other six were in the mufassal. The daily average number of operatives employed on factory labour also increased from 54,344 to 57,309. There was an increase in the average daily number of female employees, the figures being 6,468 for 1911 against 6,302 for 1910. The number of children also rose slightly from 4,725 to 4,784. The sanitary arrangements in almost all factories continued to be satisfactory and the general health of the operatives good. Inspections by medical officers were generally sufficient; but in several districts inspections by non-medical inspectors again fell short of the required number. Machinery was sufficiently protected by fencing in almost all the factories; but minor defects were reported in the districts of Anantapur, South Canara, Guntūr, Kistna and Rāmnād. The number of accidents rose from 242 to 308. Of these 4 were fatal, 48 serious and 256 minor, against 2 fatal, 28 serious and 212 minor accidents in the preceding year. The largest number of accidents occurred in the Railway Workshops at Perambur (41) and the Cordite Factory at Aravankad (47). The increase in the number of accidents is attributed to the increased vigilance of managers of factories in reporting minor occurrences. Two prosecutions were instituted under the Act, both in Gōdāvari district, and both ended in conviction.

Cotton and jute mills.

574. There were 14 cotton mills in the Presidency, including 1 in Pondicherry, with a total of 386,424 spindles. The daily average number of employees was 22,489, of which number 2,574 were women and 4,065 children. All the mills were controlled by joint stock companies. The nominal share capital of the 14 mills amounted in the aggregate to Rs. 1,30,00,500, and share capital was fully paid up in seven of them. There were two jute mills, controlled by joint stock companies with a total of 5,032 spindles and 234 looms, employing on an average 1,792 operatives daily.

Other factories.

575. There were 40 factories employing steam power engaged in ginning, cleaning and pressing cotton as against 46 in 1910 and 39 in 1909. The majority were in the cotton districts of Anantapur, Bellary, Guntūr, Kistna, Rāmnād and Tinnevelly. There were 62 rice mills as compared with 56 in 1910 and 48 in 1909. Of this number 57 were in the three districts of Guntūr, Kistna and Gōdāvari. Among other factories employing steam power the most numerous were 13 cotton spinning and weaving mills, 14 tile-works (13 on the West Coast), 9 railway workshops and 5 iron and brass works. One glass factory and an oil-mill worked by electricity, both in Madras, were opened during the year. There were 11 Government and local fund factories.

Industries.

576. During the year there were in the Madras Presidency 92 private industries not classed as factories under the Factory Act. In 36 of these

mechanical power was employed, the most important being 12 coffee works in Malabar and South Canara, 6 factories in the districts of Kistna, Kurnool and Rāmnād employed in ginning, cleaning and pressing cotton, 1 weaving establishment in South Canara, 4 printing presses, 2 rice mills and 2 tile and brick works. Of the 56 industries which employed no mechanical power the most important were 9 weaving factories, 8 fish-curing yards, 6 mica splitting works, 15 tanneries, 5 palmyra fibre cleaning works (at Tuticorin), 2 rope works and 2 tobacco factories. In the Travancore State there were 15 concerns worked by mechanical power comprising 5 tile and brick works, 5 oil mills, 2 rope works, 2 fibre manufactories and 1 plumbago sorting establishment. Only one of these, a rope yard at Alleppey, employed a daily average of over 1,000 hands. There were 22 factories employing mechanical power in the Cochin State, the number comprising 9 oil mills and 9 tile manufactories. Native States.

SEA-BORNE TRADE. (1911–1912.)

[*Review of the Sea-Borne Trade of the Madras Presidency for the year 1911–1912; Annual Volume of the Sea-Borne Trade and Navigation of the Madras Presidency for the year 1911–1912; Statistics of British India, Part II, Commercial; Annual Statement of the Sea-Borne Trade and Navigation of British India with the British Empire and Foreign Countries; Annual Statement of the Coasting Trade and Navigation of British India; Review of the Trade of India for 1911–1912.*]

577. In the following statement the value of the sea-borne trade foreign and coasting, inclusive of Government transactions, of the Madras Presidency for the year ending 31st March 1912, is compared with the value of the trade in each of the preceding two years and with the average of the five years ending with 1908–1909:— **Total Trade.** General Summary.

Total trade.	Average for the five years ending 1908–1909.	1909–1910.	1910–1911.	1911–1912.	Increase or decrease in 1911–1912.	Percentage of difference in 1911–1912.
	Rs.	Rs.	Rs.	Rs.	Rs.	
(1) *Foreign trade.*						
Imports—						
Merchandise	9,41,93,950	9,46,41,251	10,63,62,041	11,69,22,117	+ 1,05,60,076	+ 10
Gold	44,14,656	1,09,49,821	49,16,560	24,28,890	− 24,87,670	− 51
Silver	18,22,726	20,42,933	22,80,036	18,02,331	− 4,77,705	− 21
Total, Imports (private) ...	10,04,31,332	10,76,34,005	11,35,58,637	12,11,53,338	+ 75,94,701	+ 7
Government stores	45,29,711	39,77,234	31,26,693	37,03,473	+ 5,76,780	+ 18
Do. treasure	..	..	...	...	..	...
Grand Total, Imports ...	10,49,61,043	11,16,11,239	11,66,85,330	12,48,56,811	+ 81,71,481	+ 7
Exports—						
Indian produce, etc.	16,82,60,245	17,37,07,423	20,89,63,213	22,88,51,438	+ 1,98,88,225	+ 9
Foreign merchandise	12,25,633	14,42,681	18,36,715	21,55,287	+ 3,18,542	+ 17
Gold	1,94,767	3,419	2,290	10,30,665	+ 10,28,375	...
Silver	27,58,200	75,54,520	68,78,649	32,51,355	− 36,27,294	− 53
Total, Exports (private) ...	17,24,38,845	20,27,08,043	21,76,80,867	23,52,88,715	+ 1,76,07,848	+ 8
Government stores	1,16,044	1,20,738	61,105	2,09,667	+ 1,48,562	+ 243
Do. treasure	...	...	...	...	...	...
Grand Total, Exports ...	17,25,54,889	20,28,28,781	21,77,41,972	23,54,98,382	+ 1,77,56,410	+ 8
Aggregate Foreign Trade ...	27,75,15,932	31,44,40,020	33,44,27,302	36,03,55,193	+ 2,59,27,891	+ 8

Total trade.	Average for the five years ending 1908–1909.	1909–1910.	1910–1911.	1911–1912.	Increase or decrease in 1911–1912.	Percentage of difference in 1911–1912.
	RS.	RS.	RS.	RS.	RS.	
(2) *Coasting trade.*						
Imports—						
Indian produce	5,74,56,844	9,10,76,469	7,96,97,000	6,95,14,162	– 1,01,82,838	– 13
Foreign merchandise	98,45,457	1,04,88,486	1,15,90,747	1,15,58,869	– 31,878	– 3
Gold	25,753	2,145	39,285	300	– 38,985	– 99
Silver	2,28,063	79,181	3,87,825	2,68,250	– 1,19,575	– 31
Total, Imports (private) ...	6,75,56,117	10,16,46,281	9,17,14,857	8,13,41,581	– 1,03,73,276	– 11
Government stores	13,85,767	11,03,819	9,60,078	13,32,165	+ 3,72,387	+ 39
Do. treasure	6,000	...	...	60,00,000	+ 60,00,000	...
Grand Total, Imports ...	6,89,47,884	10,27,50,100	9,26,74,935	8,86,73,746	– 40,01,189	– 4
Exports—						
Indian produce	5,28,92,540	4,81,24,282	5,04,13,877	6,19,95,502	+ 1,15,81,625	+ 23
Foreign merchandise	14,53,827	12,38,396	13,10,217	13,21,978	+ 11,761	+ 1
Gold	3,468	...	37,500	...	– 37,590	...
Silver	73,837	46,200	3,34,000	1,98,000	– 1,36,000	– 41
Total, Exports (private) ...	5,44,23,672	4,94,08,878	5,20,95,594	6,35,15,480	+ 1,14,19,886	+ 22
Government stores	13,22,307	14,44,527	11,14,185	9,44,266	– 1,69,919	– 15
Do. treasure	5,84,853	17,84,135	61,234	53,25,289	+ 52,64,055	...
Grand Total, Exports ...	5,63,30,832	5,26,37,540	5,32,71,013	6,97,85,035	+ 1,65,14,022	+ 31
Aggregate Coasting Trade ...	12,52,78,716	15,53,87,640	14,59,45,948	15,84,58,781	+ 1,25,12,833	+ 9
Aggregate Trade	40,27,90,648	46,98,27,660	48,03,73,250	51,88,13,974	+ 3,84,40,724	+ 8

Foreign trade.

The total value of the sea-borne trade showed a substantial improvement in which both the foreign and coasting trades shared. As compared with 1910–1911 the aggregate trade increased by 8 per cent., the foreign trade rising in value by 8 per cent. and the coasting trade by 9 per cent. In the foreign trade, considerable expansion took place both in imports and exports, the improvement being 7 per cent. and 8 per cent. respectively. Imports of private merchandise increased by Rs. 105·60 lakhs or 10 per cent. as a result of larger receipts of cotton goods, metals, kerosene oil, machinery and mill-work, carriages and carts and raw cotton. Imports of gold and silver fell by Rs. 29·65 lakhs or 41 per cent. In the export trade there was an expansion of Rs. 177·56 lakhs or 8 per cent. Exports of Indian produce improved by Rs. 198·88 lakhs or 9 per cent., all staple articles except raw cotton and coffee sharing in the improvement. Exports of treasure fell by Rs. 25·99 lakhs or 38 per cent.

Coasting trade.

Under coasting trade, imports of Indian produce fell by 13 per cent. owing to smaller receipts of grain and pulse especially from Burma, while the exports of country produce rose by 23 per cent. on account of larger shipments of groundnut seeds to Bengal and groundnut oil to Burma.

Customs.

The total gross customs revenue advanced by Rs. 5·11 lakhs or 7 per cent. The amount of import duty realized showed an increase of Rs. 4·34 lakhs or 7 per cent. over the record figure of the previous year. The increase occurred chiefly under cotton goods, manufactured articles and spirits and liquors. The increase in the case of the first two items was due to larger importations, the trade in cotton piece-goods reviving from the depressed condition of the previous years. The increase under spirits and liquors was due to larger clearances from bond especially towards the end of the official year in anticipation of a probable increase in the rates of duty. The increase of Rs. 0·77 lakh or 10 per cent. under export duty was due to larger exports of rice and paddy to Ceylon and the Reunion, through the diversion of the Burma trade from these markets.

Foreign Trade.

578. The following statement shows the value of the import and export trade of the Presidency according to the classes under which they are shown in the Government accounts.

	Imports.				
	Average of five years ending 1908-1909.	1909-1910.	1910-1911.	1911-1912.	Increase or decrease in 1911-1912.
	LAKHS RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.
I. Animals, living	6·50	5·29	5·38	4·15	— 1·23
II. Articles of food and drink	83·92	110·20	117·34	116·48	— ·86
III. Metals and manufactures of metals—					
A. Hardware and cutlery	26·14	29·47	33·54	35·20	+ 1·66
B. Metals	90·47	110·84	121·70	129·42	+ 7·72
C. Machinery and millwork	36·60	44·32	40·07	44·24	+ 4·17
D. Railway plant and rolling-stock	74·12	62·41	65·95	53·18	— 12·77
Total of No. III ...	227·33	247·04	261·26	262·04	+ ·78
IV. Chemicals, drugs, medicines and narcotics, and dyeing and tanning materials	32·05	37·94	37·02	43·31	+ 6·29
V. Oils	45·43	46·39	53·63	57·02	+ 3·39
VI. Raw materials and unmanufactured articles ...	17·86	27·77	24·91	31·30	+ 6·39
VII. Articles manufactured and partly manufactured—					
A. Yarns and textile fabrics	377·62	287·21	354·86	420·75	+ 65·89
B. Apparel	35·02	39·80	45·11	45·65	+ ·54
C. Other articles	116·22	144·77	164·11	188·52	+ 24·41
Total of No. VII ...	528·86	471·78	564·08	654·92	+ 90·84
Total Merchandise ...	941·95	946·41	1,063·62	1,169·22	+ 105·60
Treasure	62·37	129·93	71·97	42·31	— 29·66
Grand Total ...	1,004·32	1,076·34	1,135·59	1,211·53	+ 75·94

	Exports.				
	Average of five years ending 1908-1909.	1909-1910.	1910-1911.	1911-1912.	Increase or decrease in 1911-1912.
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.
I. Animals, living	16·70	14·05	19·32	23·49	+ 4·17
II. Articles of food and drink	529·84	540·10	595·29	674·80	+ 79·51
III. Metals and manufactures of metals—					
A. Hardware and cutlery	1·22	1·45	1·84	2·15	+ ·31
B. Metals	9·54	5·64	4·24	4·89	+ ·65
C. Machinery and mill-work	·24	·10	·14	·30	+ ·16
D. Railway plant and rolling-stock	·14	...	·01	...	— ·01
Total of No. III ...	11·14	7·19	6·23	7·34	+ 1·11
IV. Chemicals, drugs, medicines and narcotics, and dyeing and tanning materials	34·91	30·08	30·28	29·36	— ·92
V. Oils	30·06	42·80	41·88	51·54	+ 9·66
VI. Raw materials and unmanufactured articles ...	583·58	747·33	829·52	873·90	+ 44·38
VII. Articles manufactured and partly manufactured—					
A. Yarns and textile fabrics	111·66	137·32	140·10	147·06	+ 6·96
B. Apparel	2·64	2·15	2·53	2·46	— ·07
C. Other articles	374·32	430·48	442·85	500·12	+ 57·27
Total of No. VII ...	488·62	569·95	585·48	649·64	+ 64·16
Total Merchandise ...	1,694·85	1,951·50	2,108·00	2,310·07	+ 202·07
Treasure	75·58	75·58	68·81	42·82	— 25·99
Grand total ...	1,770·43	2,027·08	2,176·81	2,352·89	+ 176·08

Under imports the marked advance shown in group VII-A represents larger imports of cotton twist and yarn and cotton manufactures. The increase in group VII-C is spread over many items, and that in III-B is accounted for by larger receipts of steel and aluminium, while the decrease in III-D occurs under locomotive engines and tenders. Under exports the increase in group II is attributable to larger shipments of rice and paddy and copra. Seeds account for an increase under VI. Larger shipments of tanned hides and skins and coir manufactures contributed to the increase in group VII-C.

Imports.

579. The following table shows the comparative importance of the principal articles imported into the Madras Presidency :—

Principal articles.	Average of five years ending 1908-1909.	1909-1910.	1910-1911.	1911-1912.	Percentage of proportion to total imports of merchandise.	Increase or decrease in 1911-1912.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cotton manufactures	2,66,41,469	1,96,85,017	2,43,93,395	2,98,03,710	25·49	+ 54,10,315
Metals	99,47,003	1,10,83,805	1,21,69,664	1,29,41,910	11·07	+ 7,72,246
Cotton twist and yarn	97,42,371	76,77,551	95,84,559	1,04,49,002	8·94	+ 8,64,643
Oils	45,42,469	46,38,676	53,62,884	57,02,162	4·88	+ 3,39,278
Railway plant and rolling-stock ...	74,12,448	62,40,687	65,94,862	53,18,256	4·55	− 12,76,606
Apparel	35,01,994	39,80,014	45,10,693	45,64,550	3·90	+ 53,857
Machinery and mill-work	36,59,473	44,32,032	40,07,353	44,23,381	3·80	+ 4 16,028
Sugar	11,66,620	31,79,680	37,57,016	38,07,397	3·26	+ 50,381
Hardware and cutlery	26,14,093	29,47,117	33,53,930	35,20,068	3·01	+ 1,66,138
Spices	29,74,272	33,16,565	37,66,888	34,17,707	2·92	− 3,49,181
Provisions	17,34,731	20,71,280	21,15,555	24,12,911	2·06	+ 2,97,356
Carriages and carts	6,72,204	10,42,236	13,86,475	19,14,928	1·64	+ 5,28,453
Liquors	22,25,439	21,37,934	19,79,019	18,68,435	1·60	− 1,10,584
Glass and glassware	11,04,114	13,55,083	16,14,866	18,64,675	1·60	+ 2,49,809
Paper and pasteboard	12,06,543	15,39,432	16,90,175	17,47,193	1·49	+ 57,018
Drugs, medicines and narcotics ...	15,65,008	16,69,275	14,41,600	17,30,467	1·48	+ 2,88,867
Instruments, apparatus, etc. ...	9,66,535	12,79,891	14,05,032	15,62,087	1·34	+ 1,57,055
Articles (not specified) imported by post	8,41,312	10,38,199	13,04,894	15,03,712	1·29	+ 1,98,818
Dyeing and tanning materials ...	8,79,379	12,76,391	13,28,392	14,47,358	1·24	+ 1,18,966
Arms and ammunition	12,03,436	10,78,871	9,99,393	11,65,149	1·00	+ 1,65,756
Chemicals	7,61,032	8,48,757	9,32,369	11,53,260	·99	+ 2,20,891
Matches	7,60,131	10,19,924	10,49,737	11,02,332	·94	+ 52,595
Jute manufactures	6,55,985	6,04,103	6,62,677	8,94,240	·76	+ 2,31,563
Wood and manufactures of wood ...	5,16,801	12,03,885	9,59,516	8,92,151	·76	− 67,365
Hides and skins	5,46,840	6,36,223	9,01,677	8,27,189	·71	− 74,488
Soap	3,12,492	5,19,293	6,24,778	8,04,274	·69	+ 1,79,496
Buildings and engineering materials.	5,30,895	4,88,559	9,33,956	7,28,825	·62	− 2,05,131
Woollen goods	5,35,319	5,18,526	5,95,007	6,85,054	·59	+ 90,047
Stationery (excluding paper) ...	4,41,508	5,73,230	6,22,763	6,76,352	·58	+ 53,589
Paints and colours	3,61,524	4,31,698	5,36,747	5,95,905	·51	+ 59,108
Cotton, raw	6,394	20,264	6,599	5,82,469	·50	+ 5,75,870
Books and printed matter	3,24,159	4,10,708	3,28,626	4,80,441	·41	+ 1,51,815
Jewellery and plate of gold and silver	1,53,978	3,19,560	2,99,774	4,75,219	·40	+ 1,75,445
Earthenware and porcelain	2,41,153	2,75,875	2,94,767	4,59,757	·39	+ 1,64,980
Animals, living	6,50,295	5,29,604	5,38,308	4,15,089	·35	− 1,23,219
Tea chests	1,97,129	3,06,522	2,50,198	3,46,322	·30	+ 96 124
Toys and requisites for games ...	2,75,437	3,11,449	3,21,930	3,42,092	·29	+ 20,163
Gums and resins	1,58,903	1,55,518	2,10,716	3,19,170	·27	+ 1,08,454
Candles	2,28,695	2,55,319	3,33,535	2,73,967	·23	− 59,568
Cabinetware and furniture	1,56,450	1,92,103	1,69,855	2,45,067	·20	+ 75,212
Silk, raw	27,955	...	7,400	2,29,004	·19	+ 2,21,604
Printing and lithographing materials	1,72,369	2,05,558	1,88,422	1,85,274	·16	− 3,148
Coal, coke and patent fuel	3,04,232	7,05,800	2,42,159	1,82,579	·16	− 59,580
Leather and manufactures of leather	1,42,527	1,65,037	2,02,958	1,64,198	·14	− 38,760
Other articles	20,30,894	22,74,000	23,80,872	26,96,638	2·30	+ 3,15,766
Total Merchandise ...	9,41,93,950	9,46,41,251	10,63,62,041	11,69,22,117	100·00	+ 1,05,60,076
Treasure—						
Gold	44,14,656	1,09,49,821	49,76,560	24,28,890	...	− 24,87,670
Silver	18,22,727	20,42,933	22,80,036	18,02,331	...	− 4,77,705
Total, Treasure ...	62,37,383	1,29,92,754	71,96,596	42,31,221	...	− 29,65,375
Grand Total, Imports ...	10,04,31,333	10,76,34,005	11,35,58,637	12,11,53,338	...	+ 75,94,701

Animals.

580. The increased popularity of motor vehicles has had a considerable adverse effect on the trade in horses which has diminished by Rs. 1·3 lakhs; 789 horses were imported as against 1,006 in the previous year and the average value per horse was slightly lower.

Food and drink. Liquors.

581. The import of malt liquors, 93 per cent. of which came from the United Kingdom, improved to a small extent. The import trade in foreign spirits has decreased in quantity by 13 per cent. and by 10 per cent. in value and the decline has been in all cases of potable spirits. The enhanced prices of foreign spirits have led to a drop in consumption and liquors of country manufacture have increased in favour to a certain extent. The more active competition of Bombay merchants has also had an effect in lessening the imports by sea. Nearly every class of provisions showed an improved trade, the aggregate amounting to Rs. 24·1 lakhs, which is 14 per cent. above the previous year's total.

Provisions.

Metals, etc.

582. Hardware and cutlery formed 13 per cent. of the total imports of metals and manufactures of metals. The trade in hardware and cutlery has expanded

steadily and the improvement has been shared among all the sub-heads with the exception of agricultural implements, which were imported to a slightly less extent probably on account of the large imports of the previous year.

Chemicals, drugs, etc.

583. The total value of *Chemicals* imported in 1911–1912 amounted to Rs. 11·53 lakhs against Rs. 9·32 lakhs in 1910–1911. The increase was mainly under *chemical manures*, the value of which rose from Rs. 1·53 lakhs to Rs. 2·94 lakhs. The increased demand has been produced through the development and prosperity of the planting and agricultural industries; sulphate of potash, basic slag and nitrolim have been the manures most largely imported. The total value of *drugs and medicines* rose by Rs. 2·20 lakhs.

Dyeing and tanning materials.

Alizarine and aniline dyes represented nearly 70 per cent. under the head of dyeing and tanning materials. Imports of *alizarine* increased by 7 per cent. in quantity and 3 per cent. in value, and those of *aniline* dyes rose by 29 per cent. in quantity and 20 per cent. in value. Germany and Belgium respectively supplied 32 and 59 per cent. of *alizarine* and 78 and 18 per cent. of *aniline* dyes. *Synthetic indigo* continued to make steady progress, and the imports amounted to 120,232 lbs. valued at Rs. 1·39 lakhs against 93,932 lbs. valued at 1·27 lakhs.

Oils.

584. The total imports of oils, more than 99 per cent. of which were *mineral oils*, showed an increase of 6 per cent. both in quantity and value. Imports of foreign *kerosene oil* improved by nearly 3 per cent. in quantity and 7 per cent. in value. The imports of *Burma oil* advanced by 9 per cent. in quantity and 7 per cent. in value. During the year the rate war between the Standard Oil Company of America and the two English Companies, the Asiatic Petroleum Company and the Burma Oil Company continued, and prices were cut considerably. The demand for *liquid fuel* among the ryots for water pumps, etc., largely contributed to the expansion of 63 per cent. under the head. Imports of *lubricating oils* fell by 21 per cent., while imports of foreign *petrol or motor spirit* amounted to 2,400 gallons only owing to the competition of *Burma petrol* which amounted to 152,968 gallons in the year under review.

Raw materials.

585. The total imports of raw materials increased by Rs. 6·39 lakhs or 26 per cent. The imports of *foreign coal* declined considerably, only 1,771 tons having been imported against 4,460 tons in 1910–1911 and 29,379 tons in 1909–1910, owing to the greater use of Indian coal, the imports of *Bengal coal* rising by 37,396 tons in quantity and Rs. 2·42 lakhs in value. *Patent fuel* advanced by Rs. 0·21 lakh. The drop in price of American cotton in consequence of the abnormal crop increased the imports from 521 cwt. valued at 0·07 lakh to 14,481 cwt. valued at 5·82 lakhs.

Manufactured articles.

586. The import trade in cotton goods emerged from the stagnant state that it had been in for the previous two years and returned to a more healthy condition. In 1909–1910 the market had been overstocked and disorganized by reckless overtrading in 1908–1909 and these stocks had to be worked off before new purchases could be made. Cotton goods represented 34 per cent. of the total value of imports, and the year's trade, compared with the trade of the previous year, rose in value by 18 per cent. The imports of jute manufactures rose from Rs. 6·63 lakhs to Rs. 8·94 lakhs, the increase being due to larger imports of old gunny bags from Ceylon on account of larger exports of rice to that colony.

Jute and wool.

Woollen manufactures improved from Rs. 5·95 lakhs to Rs. 6·55 lakhs as a result of larger imports of *yarn and knitting wool* from the United Kingdom. Imports of *woollen piece-goods* rose from 306,385 yards to 330,001 yards, but their value fell from Rs. 3·64 lakhs to Rs. 3·54 lakhs.

Apparel.

The total value of *apparel* imported amounted to Rs. 45·65 lakhs and showed an increase of Rs. 0·54 lakh or 1 per cent. over the record figure of the previous year. Imports of *gold and silver thread*, wholly supplied by France, amounted to Rs. 28·60 lakhs and were above the average in value.

Miscellaneous manufactured articles.

587. The total imports of other manufactured articles amounted to Rs. 188·52 lakhs and showed an expansion of 15 per cent., nearly all sub-heads sharing in the increase.

Exports.

Re-exports.

588. The value of re-exports advanced by Rs. 3·18 lakhs to Rs. 21·55 lakhs. *Cotton piece-goods*, which formed 44 per cent. of the total, rose from 3,202,696 yards valued at Rs. 8·39 lakhs to 3,505,084 yards valued at Rs. 9·56 lakhs.

589. The following table gives the value of the principal articles of Indian produce and manufactures in the export trade of this Presidency together with the exports of treasure and shows their comparative importance :—

Indian produce and manufactures.

Principal articles.	Average of five years ending 1908–1909.	1909–1910.	1910–1911.	1911–1912.	Percentage of proportion to total exports of merchandise.	Increase or decrease in 1911–1912.
	Rs.	Rs.	Rs.	Rs.		Rs.
Hides and skins	3,69,48,203	3,95,95,082	3,75,29,684	4,06,98,486	17·78	+ 31,68,802
Cotton, raw	2,55,30,037	3,18,17,443	4,14,18,843	3,90,22,462	17·05	− 23,96,381
Seeds	1,40,08,046	2,49,09,190	2,51,56,746	2,93,33,788	12·82	+ 41,77,042
Grain and pulse	1,89,24,685	1,40,59,465	1,42,19,442	1,75,36,325	7·66	+ 33,16,883
Coffee	1,36,58,990	1,08,85,489	1,31,24,107	1,30,75,004	5·71	− 49,103
Fruits and vegetables	35,43,816	86,12,559	92,58,731	1,27,91,989	5·59	+ 35,33 258
Tea	85,14,568	1,15,73,462	1,22,89,442	1,23,57,665	5·40	+ 68,223
Cotton manufactures	87,51,509	99,14,800	1,03,98,593	1,06,54,046	4·66	+ 2,55,453
Coir manufactures	54,77,808	72,27,705	68,69,887	79,75,710	3·49	+ 11,05,823
Spices	46,13,079	48,52,475	52,63,729	60,77,282	2·66	+ 8,13,553
Oils	29,64,651	42,77,119	41,83,505	51,53,570	2·25	+ 9,70,065
Provisions	25,71,758	32,34,108	40,08,396	44,14,497	1·93	+ 4,06,101
Fodder, bran and cattle-food ...	29,72,035	31,47,208	29,98,225	41,42,792	1·81	+ 11,44,567
Manures	22,84,969	25,75,612	28,26,932	29,37,418	1·28	+ 1,10,486
Articles (not specified) exported by post.	7,39,444	17,85,942	22,89,402	26,84,346	1·17	+ 3,94,944
Cotton twist and yarn	16,39,992	28,16,239	23,00,612	26,23,956	1·15	+ 3,26,344
Animals, living	16,43,212	13,93,647	19,10,333	23,32,118	1·02	+ 4,21,785
Caoutchouc, raw	5,654	1,95,120	8,13,435	22,98,372	1·00	+ 14,84,937
Wood and manufactures of wood ...	14,12,064	10,47,809	17,32,606	18,67,622	·81	+ 1,35,016
Drugs, medicines and narcotics ...	13,66,389	16,22,692	17,49,569	16,21,365	·71	− 1,28,204
Bristles and fibre for brushes and brooms.	9,76,607	14,75,070	15,22,650	14,29,212	·62	− 93,438
Dyeing and tanning materials ...	20,83,628	13,58,237	12,33,574	12,44,684	·54	+ 11,110
Sugar	10,37,533	7,44,294	11,82,255	10,87,186	·48	− 95,069
Jute, raw	19,39,782	6,52 196	6,73,632	7,49,786	·33	+ 76,154
Hemp, raw	6,70,895	4,23,547	5,22,927	6,91,223	·30	+ 1,68,296
Mica	7,14,734	2,33,458	3,40,305	6,04,066	·26	+ 2,63,761
Metals	8,00,082	5,57,894	4,07,066	4,70,373	·21	+ 63,307
Wool, raw and manufactures ...	4,35,178	3,99,609	4,29,614	4,03,823	·18	− 25 788
Horn and hornmeal	2,43,858	3,08,354	1,74,495	2,79,973	·12	+ 1,05,478
Silk, raw	2,37,552	3,58,434	2,29,703	2,35 752	·10	+ 6,049
Paints and colours	1,79,460	3,00,331	2,43,910	2,03,761	·09	− 40,149
Building and Engineering materials	1,15,050	1,49,379	2,08,332	1,73,734	·08	− 34,598
Apparel	2,25,371	1,64,632	1,76,015	1,72,809	·08	− 3,206
Other articles	10,29,696	10,38,822	12,76,516	15,03,240	·66	+ 2,26,724
Total merchandise ...	16,82,60,245	19,37,07,423	20,89,63,213	22,88,51,438	100·00	+ 1,98,88,225
Treasure—						
Gold	1,94.767	3,419	2,290	10,30,665	...	+ 10,28,375
Silver	27,58,200	75,54,520	68,78,649	32,51,355	...	− 36 27,294
Total Treasure ...	29,52,967	75,57,939	68,80,939	42,82,020	...	− 25,98,919
Grand Total ...	17,12,13,212	20,12,65,372	21,58,44,152	23,31,33,458	...	+ 1,72,89,306

The increase of Rs. 4·22 lakhs under living animals was due to larger shipments of high-priced cattle to Ceylon, the Straits Settlements and the Federated Malay States, which respectively took to the value of Rs. 17·23, 3·99 and 1·57 lakhs against Rs. 15 86, 2·79 and 0·29 lakhs in the previous year.

Food and drink. Coffee.

590. Exports of coffee fell by 13 per cent. in quantity and 0·4 per cent. in value, which represented a rise in specific value of 14 per cent. From the planters' point of view, the year was a prosperous one, for prices attained abnormal heights, the value rising from Rs. 49–2–0 to Rs. 56–1–0 per cwt. The season was good and the harvest, though late, was above the average. The total value of exports of *fruits and vegetables* advanced from Rs 92·59 lakhs to Rs. 127·92 lakhs. The article of outstanding importance under this head is cocoanut-kernel or copra, the exports of which accounted for Rs. 113 lakhs out of the total. This valuable product of the cocoanut palm further increased in value, the average price rising from Rs. 17–9–0 to Rs. 17–14–0 per cwt. The year's crop was good and cultivation prospered under the influence of a steadily increasing demand. Copra forms an important raw material in the soap-making industry but its use is extending in many directions in consequence of the invention of successful processes for the removal of the distinctive odour and liability to become rancid. As vegetable butter it has become a popular article of food, the manufacture of which is an expanding industry, notably

Fruits and vegetables.

Copra.

on the continent. The exports of copra were mainly from the Malabar Coast, Cochin, Calicut and Badagara being the chief ports of export. The exports of rice and paddy have been affected indirectly by the famine in the Far East, where the demand for rice diverted much of the Burma rice trade from its usual channel. Prices in Rangoon rose to abnormal heights. The Ceylon and Reunion markets were largely neglected and in consequence Madras was called upon to make good the deficiency in supply. The statement below shows the prices of rice and paddy during the past ten years:— Rice.

—	1902–1903.	1903–1904.	1904–1905.	1905–1906.	1906–1907.	1907–1908.	1908–1909.	1909–1910.	1910–1911.	1911–1912.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Paddy	2 5 4	2 4 3	2 5 2	2 11 5	3 3 7	3 6 3	3 12 2	3 4 1	2 15 3	3 0 11
Rice.	5 2 6	4 10 6	4 10 7	5 5 4	6 2 5	6 6 11	6 8 2	6 2 1	5 14 0	6 2 3

The total value of provisions exported amounted to Rs. 44·14 lakhs against Rs. 40·08 lakhs in the previous year. *Dry fish, salted and unsalted*, was the chief item with a value of Rs. 24·98 lakhs against Rs. 24·33 lakhs in the previous year. Provisions.

591. *Manganese ore* is the principal item under the head of metals, and exports amounted to 1,016,000 cwt. valued at Rs. 3·64 lakhs against 864,000 cwt. valued at Rs. 3·47 lakhs, an increase of 17 per cent. in quantity and 5 per cent. in value. The industry continued in a quiet condition for though the rates improved somewhat, the charges for freight also increased. Metals.

592. The total value of chemicals and drugs declined from Rs. 29·87 lakhs to Rs. 29·10 lakhs or by 2 per cent. The exports of drugs showed little variation from the previous year's figures. The trade in *leaf tobacco* receded from 1,670,842 lbs. to 1,619,566 lbs. or by 3 per cent. in quantity and from Rs. 3·19 lakhs to Rs. 3·14 lakhs or by 2 per cent. in value. *Cigars* improved from 704,791 lbs. to 797,383 lbs. or by 13 per cent. in quantity and from Rs. 4·32 lakhs to Rs. 4·71 lakhs or by 9 per cent. in value. The total value of dyeing and tanning materials improved by Rs. 0·11 lakh to Rs. 12·45 lakhs or 1 per cent. The trade in *indigo* showed a slight improvement from 2,364 cwts. to 2,510 cwts. or by 6 per cent. in quantity and from Rs. 3·92 lakhs to Rs. 4·23 lakhs or by 8 per cent. in value. India possessed a monopoly in this trade until a few years ago. In 1895–1896 the industry attained the zenith of its prosperity, when the exports rose to Rs. 240 lakhs. Since then the diminution in the value of exports has been rapid and continuous on account of the competition of synthetic indigo, which was placed on the world's markets in 1897. The trade in *myrabolams* declined from Rs. 4·50 lakhs to Rs. 3·25 lakhs owing to the increase in the local tanning industry. Exports of *turmeric* increased by Rs. 0·89 lakh to Rs. 3·60 lakhs. Chemicals, drugs, etc. Tobacco. Dyeing and tanning materials. Indigo.

593. The total value of oils exported showed an increase of Rs. 9·70 lakhs or 23 per cent. *Lemon-grass oil* was the only essential oil exported from this Presidency. Lemon-grass grows abundantly on the West Coast throughout the year and a large industry for extracting the oil from this grass has sprung up in South Malabar. Exports rose from 12,570 gallons valued at Rs. 2·36 lakhs to 19,278 gallons valued at Rs. 4·35 lakhs owing to increased demands. Under vegetable oils the trade in *cocoanut oil*, representing 78 per cent. of the total shipments of all oils, rose from 1,890,297 gallons to 2,120,645 gallons or by 12 per cent. in quantity and from Rs. 33·95 lakhs to Rs. 39·66 lakhs or by 17 per cent. in value. Oils.

594. The total value of raw materials representing 38 per cent. of the total value of exports of Indian merchandise further increased from Rs. 829·41 lakhs to Rupees 873·85 lakhs or by 5 per cent. With the exception of *bristles, cotton raw, and hides and skins*, increases are recorded under each principal item comprising this group. Raw materials.

595. The trade in cotton twist and yarn recovered from the depression of the previous year, and exports advanced by 2 per cent. in quantity and 14 per cent. in value. The bulk of the yarn manufactured was exported as usual to China, which took 95 per cent. of the total yarn exported, or 1 per cent. more than in the previous year. The revolution in China affected the Shanghai mills and disorganized the financial system on which the trade was conducted. The improvement in the political situation towards the end of the year under review led to increased imports to make up for the shortage in the mill production. Manufactured articles. Yarn.

Distribution of Foreign Trade.

596. The following table shows how the trade of the Madras Presidency with foreign countries was distributed in the periods stated. From April 1911 the system of registration by countries of consignment in the case of imports and by countries of final destination in the case of exports has been adopted in place of the old system according to countries of shipment and discharge. The table excludes treasure and Government stores :—

	Imports.				Exports.				Total of imports and exports.		Percentage which the total of each country bears to the whole.	
	Average of three years ending 1909-1910.	1910-1911.	1911-1912.	Increase or decrease in 1911-1912.	Average of three years ending 1909-1910.	1910-1911.	1911-1912.	Increase or decrease in 1911-1912.	1910-1911.	1911-1912.	1910-1911.	1911-1912.
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.
British Empire—												
United Kingdom ...	704·77	690·82	764·31	+ 73·49	574·48	609·82	670·83	+ 61·01	1,300·64	1,435·14	41·01	41·25
Aden and dependencies	·11	·16	·07	— ·09	1·04	1·18	1·92	+ ·74	1·34	1·99	·04	·06
Bahrein Islands ...	..	...	...	...	·51	1·82	2·57	+ ·75	1·82	2·57	·06	·07
Ceylon	49·15	55·58	53·66	— 1·92	379·44	358·18	389·16	+ 30·98	413·76	442·82	13·04	12·73
Straits Settlements (including Labuan).	37·74	38·18	44·93	+ 6·75	73·29	90·81	99·15	+ 8·34	128·99	144·08	4·07	4·14
Federated Malay States	·02	·11	·10	— ·01	1·14	6·54	10·97	+ 4·43	6·65	11·07	·21	·32
Hongkong	3·32	2·62	1·99	— ·63	1·18	1·21	1·08	— ·13	3·83	3·07	·12	·09
Natal	1·23	·60	·19	— ·41	2·26	2·91	3·07	+ ·16	3·51	3·26	·11	·09
Mauritius and dependencies ..	1·44	2·02	4·28	+ 2·26	22·86	14·18	13·07	— 1·11	16·20	17·35	·51	·50
Canada	·01	·01	...	— ·01	22·12	27·72	33·91	+ 6·19	27·73	33·91	·87	·97
West Australia ...	4·42	5·99	3·54	— ·245	·32	·31	·58	+ ·27	6·30	4·12	·20	·12
Victoria	6·32	7·20	5·76	— 1·44	7·95	9·45	7·41	— 2·04	16·65	13·17	·53	·38
New South Wales	1·25	1·02	1·25	+ ·23	1·73	2·95	3·43	+ ·48	3·97	4·68	·13	·13
Other countries ...	·97	·38	·29	+ ·14	3·74	3·75	4·90	+ 1·15	4·13	5·19	·13	·15
Total of British Empire.	810·75	804·69	880·37	+ 75·68	1,092·06	1,130·83	1,242·05	+ 111·22	1,935·52	2,122·42	61·03	61·00
Foreign Countries—												
Russia ...	4·63	10·07	1·06	— 9·01	3·97	4·95	5·80	+ ·85	15·02	6·86	·47	·20
Sweden	9·49	10·44	9·83	— ·61	·92	5·74	7·47	+ 1·73	16·18	17·30	·51	·50
Germany	42·87	45·08	64·87	+ 19·79	135·06	187·30	221·73	+ 34·43	232·38	286·60	7·33	8·24
Holland	3·23	2·96	3·73	+ ·77	17·43	20·67	18·54	— 2·13	23·63	22·27	·75	·64
Belgium	42·69	38·97	38·11	— ·86	110·17	119·67	95·17	— 24·50	158·64	133·28	5·00	3·83
France	35·29	37·75	38·31	+ ·56	217·24	305·17	317·71	+ 12·54	342·92	356·02	10·81	10·23
Spain	·23	·16	·21	+ ·05	2·89	4·11	5·08	+ ·97	4·27	5·29	·13	·15
Portugal	·06	·05	·05	...	2·67	3·08	3·16	+ ·08	3·13	3·21	·09	·09
Italy	2·22	2·94	2·71	— ·23	22·17	38·89	49·21	+ 10·32	41·83	51·92	1·32	1·49
Austria-Hungary ...	19·01	21·04	24·34	+ 3·30	16·85	28·19	47·29	+ 19·10	49·23	71·63	1·55	2·06
Switzerland ...	·68	·63	·97	+ ·34	·02	·01	·02	+ ·01	·64	·99	·02	·03
Other countries ...	2·79	2·42	2·79	+ ·37	1·40	·77	1·36	+ ·59	3·19	4·15	·11	·12
Total, Europe ...	163·19	172·51	186·98	+ 14·47	530·79	718·55	772·54	+ 53·99	891·06	959·52	28·09	27·58
Asia—												
Turkey, Asiatic ...	·69	·49	1·58	+ 1·09	3·37	3·17	5·95	+ 2·78	3·66	7·53	·11	·22
Other Native States in Arabia ...	·48	...	...	...	2·11	2·44	4·16	+ 1·72	2·44	4·16	·08	·12
Sumatra	6·49	10·92	...	— 10·92	·28	·05	·44	+ ·39	10·97	·44	·35	·01
Java	10·19	31·23	28·53	— 2·70	3·46	1·09	1·11	+ ·02	32·32	29·64	1·02	·85
Borneo (Dutch) ..	4·59	4·96	5·33	+ ·37	...	...	...	...	4·96	5·33	·16	·15
Indo-China	..	...	...	...	·70	3·92	1·49	— 2·43	3·92	1·49	·12	·04
China (exclusive of Hongkong, etc.) ...	·63	·57	3·07	+ 2·50	22·43	24·32	28·02	+ 3·70	24·89	31·09	·78	·89
Japan	3·67	6·51	7·88	+ 1·37	114·11	146·23	160·85	+ 14·62	152·74	168·73	4·82	4·85
Other countries ...	1·15	·29	2·44	+ 2·15	6·67	2·17	2·20	+ ·03	2·46	4·64	·08	·14
Total, Asia ...	27·80	54·97	48·83	+ 6·14	153·13	183·39	204·22	+ 20·83	238·36	253·05	7·52	7·27
Africa—												
Egypt	·22	·06	·27	+ ·21	6·84	4·72	4·65	— ·07	4·78	4·92	·15	·14
Reunion		...	...	...	·83	...	11·69	+ 11·69	...	11·69	·01	·34
Other countries ...	·37	·02	·09	+ ·07	·23	·45	·80	+ ·35	·47	·89	...	·02
Total, Africa ...	·59	·08	·36	+ ·28	7·90	5·17	17·14	11·97	5·25	17·50	·16	·50
America—												
United States of America	39·82	31·37	52·68	+ 21·31	100·95	70·02	74·12	+ 4·10	101·39	126·80	3·20	3·65
Other countries ...	·01	...	...	...	...	·04	...	— ·04	·04	...	...	...
Total, America ...	39·83	31·37	52·68	+ 21·31	100·95	70·06	74·12	+ 4·06	101·43	126·80	3·20	3·65
Total of Foreign Countries	231·41	258·93	288·85	+ 29·92	792·77	977·17	1,068·02	+ 90·85	1,236·10	1,356·87	38·97	39·00
Grand Total ...	1,042·16	1,063·62	1,169·22	+ 105·60	1,884·83	2,108·00	2,310·07	+ 202·07	3,171·62	3,479·29	100·00	100·00

597. The trade with the *British Empire*, which represented 61 per cent. of the aggregate trade as compared with 61·03 per cent. in the previous year, advanced by Rs. 186·90 lakhs or 10 per cent. The value of imports rose by Rs. 75·68 lakhs or 9 per cent. and that of exports by Rs. 111·22 lakhs or 10 per cent. Trade with other *Foreign countries* increased by Rs. 120·77 lakhs or 10 per cent., imports being greater by Rs. 29·92 lakhs and exports by Rs. 90·85 lakhs. The trade with the *United Kingdom* represented 41·25 per cent. of the total trade as compared with 41·01 per cent. in the previous year and showed an advance of Rs. 134·50 lakhs or 10 per cent. Imports rose by Rs. 73·49 lakhs or 11 per cent. and exports by Rs. 61·01 lakhs or 10 per cent. The increase in the import trade was chiefly due to heavy imports of cotton piece-goods, cotton twist and yarn, carriages and carts, raw cotton and machinery and mill-work, partly counterbalanced by smaller imports of railway plant and rolling-stock. The increase in the export trade was brought about by larger shipments of tanned hides and skins, castor seeds, coir manufactures, copra, cocoanut oil, ground-nut seeds and cotton handkerchiefs, which were, however, partly counterbalanced by smaller exports of raw cotton and tea. The trade with *Ceylon* advanced by Rs. 29·06 lakhs or 7 per cent., the improvement being mainly under exports. The chief articles contributing to the increase were rice and paddy, caoutchouc and jinjili seeds. Shipments of coloured piece-goods and tea showed decreases of Rs. 5·70 lakhs and Rs. 2·36 lakhs respectively. The import trade with the *Straits Settlements* rose by Rs. 6·75 lakhs and the export trade by Rs. 8·34 lakhs resulting in an increase of Rs. 15·09 lakhs or 12 per cent. in the total trade. The increase under imports was mainly due to the larger imports of kerosene-oil and that under exports to larger shipments of coloured piece-goods and rice. The increase of Rs. 4·42 lakhs in the trade with the *Federated Malay States* was brought about by larger exports of living animals and coloured piece-goods to that country. The import trade with *Mauritius* advanced by Rs. 2·26 lakhs owing to larger imports of sugar, while the decrease of Rs. 1·11 lakhs under exports was due to smaller shipments of rice. *Canada* imported more tea than in the previous year, which accounted for an increase of Rs. 6·18 lakhs in the total trade. Smaller imports of wooden sleepers for railway purposes were responsible for a fall of Rs. 2·45 lakhs in the import from West Australia. The trade with the *Continent of Europe* (excluding the United Kingdom) advanced by Rs. 68·46 lakhs or 8 per cent. Imports improved by Rs. 14·47 lakhs and the exports by Rs. 53·94 lakhs. Smaller import of kerosene-oil was the main cause of the decrease of Rs. 8·16 lakhs in the *Russian* trade while the increased demand for cocoanut-oil enhanced the trade with *Sweden* by Rs. 1·12 lakhs. The trade with *Germany* further developed particularly in exports. The increase of Rs. 19·79 lakhs in the imports was chiefly due to the progress made in metals, dyeing materials and raw cotton also contributing, while the considerable increase of Rs. 34·43 lakhs in exports to *Germany* was brought about through larger shipments of copra, oil-cakes and oil-cake manure, coffee, pepper and rice-bran the trade in raw cotton and cocoanut-oil contracting. The falling off in the demand for Indian cotton reduced the export trade with *Holland*, while the trade with *Belgium* contracted mainly through smaller shipments of raw cotton and of ground-nut seeds. The trade with *France* rose by Rs. 13·10 lakhs as the net result of heavier shipments of ground-nut seeds, castor seeds, pepper and raw cotton and smaller exports of coffee and goat skins. *Italy* increased her imports by Rs. 10·32 lakhs by larger receipts of raw cotton, hemp and castor seeds. The trade with *Austria-Hungary* improved by Rs. 22·40 lakhs as a result of larger imports of enamelled ironware and glassware, and larger exports of coffee and ground-nut seeds. The trade with *Asiatic ports*, other than British, improved by Rs. 14·69 lakhs or 6 per cent. Imports declined by Rs. 6·14 lakhs while exports rose by Rs. 20·83 lakhs. The fall in the trade with *Sumatra* and *Java* was due to smaller receipts of kerosene-oil and sugar respectively from those countries. *China* supplied more silk and took more twist and yarn during the year under review. The import trade with *Japan* increased under postal articles, while the export trade improved under raw cotton by Rs. 13·20 lakhs and tanned sheep skins by Rs. 1·87 lakhs. The total trade under *Africa* advanced by Rs. 12·25 lakhs owing to exports of rice to *Reunion*. The trade with *America*, which was practically confined to the *United States*, expanded by Rs. 25·37 lakhs, Rs. 21·31 lakhs being under imports and Rs. 4·06 lakhs under exports. The increase under imports was due to larger receipts of kerosene-oil and that under exports was contributed by tanned sheep skins.

British Empire.

Continental Europe.

Asia.

Africa.

America.

Treasure (Foreign Trade).

598. The following table shows the transactions in treasure:—

Treasure.	Average of five years ending 1908–1909.	1909–1910.	1910–1911.	1911–1912.	Increase or decrease in 1911–1912.
	LAKHS. Rs.	LAKHS. Rs.	LAKHS. Rs.	LAKHS. Rs.	LAKHS. Rs.
Gold—					
Imports	44·15	109·50	49·17	24·29	– 24·88
Exports	1·95	0·03	0·02	10·31	+ 10·29
Net Imports ...	42·20	109·47	49·15	13·98	– 35·17
Silver—					
Imports	18·23	20·43	22·80	18·02	– 4·78
Exports	27·58	75·55	68·79	32·51	– 36·28
Net Imports ...	– 9·35	– 55·12	– 45·99	– 14·49	– 31·50
Total of Gold and Silver—					
Imports	62·38	129·93	71·97	42·31	– 29·66
Exports	29·53	75·58	68·81	42·82	– 25·99
Net Imports ...	32·85	54·35	3·16	– 0·51	+ 3·67

Gold.

599. Imports of gold dropped by Rs. 24·88 lakhs or 50 per cent. The decrease in the imports was not a result of any falling off in the demand for gold but an indication of a change in the route by which the metal entered the Presidency. The route which finds more favour is from Bombay by rail to Madras and these imports do not appear in the sea-borne trade of Madras. The demand for gold in the Presidency was greater than ever before though actual figures cannot be given, but the general increase in the import of gold into India, which reached the unprecedented amount of Rs. 41 crores and 49 lakhs as compared with Rs. 27 crores and 89 lakhs in the previous year, is also a measure of the increase of the imports into the Madras Presidency. Of the total amount of gold imported into India, Rs. 27 crores and 51 lakhs represented sovereigns. Some of the reasons assigned for the large imports of sovereigns are that the sovereign is growing in popularity, that it is displacing the rupee in hoarding and that it is melted down for conversion into ornaments. Of the imports by sea into Madras, Australia supplied to the value of Rs. 12 lakhs, Ceylon to the value of Rs. 11·26 lakhs and the United Kingdom to the value of Rs. 0·98 lakh against Rs. 0·75 lakh, Rs. 8·53 lakhs and Rs. 39·76 lakhs in the previous year. Exports of gold amounted to Rs. 10·31 lakhs against Rs. 0·02 lakh in 1910–1911, of which Rs. 10·06 lakhs represented sovereigns sent to Ceylon.

Silver.

Imports of silver declined by Rs. 4·78 lakhs or 21 per cent. Imports of *bar silver* advanced from 859,359 oz. valued at Rs. 15·69 lakhs to 957,398 oz. valued at Rs. 17·59 lakhs, while those of *Government of India rupees* declined from Rs. 7·08 lakhs to Rs. 0·42 lakh. The average value per ounce of bar silver increased from Rs. 1–13–3 to Rs. 1–13–5. Of the total imports of silver, the United Kingdom supplied bar silver to the value of Rs. 17·57 lakhs against Rs. 15·66 lakhs in the previous year. Exports of silver, consisting mostly of *Government of India rupees* sent to Ceylon, amounted to Rs. 32·51 lakhs as compared with Rs. 68·79 lakhs in 1910–1911.

Shipping (Foreign Trade).

600. The number of vessels that either entered or cleared at ports in the Presidency declined from 3,638 to 3,456, but their tonnage increased from 3,674,230 to 3,834,115, the average tonnage showing an increase from 1,010 to 1,109. One thousand seven hundred and thirty-one vessels aggregating 1,941,404 tons entered and 1,725 vessels of 1,892,711 tons cleared, a decrease of 76 and 106 in the number of vessels and an increase of 60,901 and 98,984 in tonnage under entries, and clearances respectively. Of the entries, vessels flying the British flag and British Indian vessels were the same in number as in the previous year, viz., 758 and 242, but their tonnages were 1,531,238 and 29,296 against 1,571,171 and 29,022 tons respectively. Vessels plying under foreign colours increased from 105 to 116 (German 86, Austro-Hungarian 9, Dutch 6, Italian 4, Norwegian, Japanese and Danish 3 each and Russian and Greek 1 each) and their tonnage from 298,734 to 341,530. Under clearances, the number of British vessels rose from 736 to 750 and their tonnage from 1,534,296 to 1,554,273. In the case of British Indian vessels the number fell by 13 and their tonnage by 5,098. Vessels flying the foreign flag increased from

71 to 96 (German 47, Austro-Hungarian 14, Italian 12, Dutch 6, Danish and Japanese 5 each, Norwegian 4, Siamese 2 and Russian 1) and their tonnage from 188,737 to 268,815 tons. The number of native craft engaged in foreign trade fell from 1,479 to 1,260 (British 219, British Indian 953 and Foreign 88), but their tonnage rose from 74,680 to 82,471. The number of vessels that entered was 615 of 39,340 tons as against 702 of 35,576 tons in the previous year. The number of vessels cleared was 645 with a tonnage of 43,131 as compared with 777 of 39,104 tons in 1910–1911.

Coasting Trade.

601. The aggregate coasting trade increased from 14 crores and 59 lakhs to 15 crores and 85 lakhs or 9 per cent., the total value of merchandise being 14 crores and 44 lakhs against 14 crores and 30 lakhs in the previous year. Of the total, the group, British ports in other presidencies, absorbed 12 crores and 11 lakhs, or 84 per cent. The trade with Bengal advanced by Rs. 110 lakhs, with Eastern Bengal and Assam by 27 lakhs, with Bombay by 4 lakhs, with Sind by 4 lakhs, while the trade with Burma declined by 139 lakhs. The number of vessels plying in the coasting trade fell from 36,244 to 33,225 and their tonnage from 16,117,790 to 15,520,597. Of the total number of vessels engaged in the coasting trade, 5,862 were British, 441 British Indian, 372 foreign and 26,550 native craft as compared with 6,307, 511, 314 and 29,112 in the previous year. Of the native craft, 30 were British, 25,807 British Indian and 713 foreign against 59,28,126 and 927 in 1910-1911.

Shipping.

Ports.

602. The value of the total trade of the Madras port attained its maximum figure of Rs. 2,121·55 lakhs, which is an increase of Rs. 219·80 lakhs or 12 per cent. over the previous year's figures. The share of the chief port in the aggregate trade of the Presidency was slightly greater being 41 per cent. against 40 per cent. in 1910–1911. Excluding Government transactions the trade expanded from Rs. 1,851·46 lakhs to Rs. 1,948·74 lakhs or by 5 per cent., the improvement taking place entirely in the foreign trade. The trade of Tuticorin, which continued to occupy the second place among the ports of this Presidency, fell away slightly in value from Rs. 835·17 lakhs to Rs. 830·36 lakhs, a decrease of Rs. 4·81 lakhs, or nearly 1 per cent. Foreign trade improved by Rs. 9·21 lakhs or 1 per cent., while coasting trade declined by Rs. 14·02 lakhs or 9 per cent. Cochin is the chief centre of the cocoanut industry and ranked second among the subordinate ports of Southern India. The total trade of the port expanded by Rs. 41·31 lakhs or 7 per cent. as the net result of an increase of Rs. 49·13 lakhs under foreign trade and a decrease of Rs. 7·82 lakhs under coasting trade. The trade of Cocanada recovered from the previous year's depression and the total value advanced from Rs. 254·67 lakhs to Rs. 295·86 lakhs or by 16 per cent. Both imports and exports helped to swell the volume of trade. The former improved by Rs. 1·34 lakhs and the latter by Rs. 51·21 lakhs. There was a recovery from the diminished trade of the previous two years at Calicut and the total value of the trade advanced from Rs. 218·07 lakhs to Rs. 236·52 lakhs or by 8 per cent. Under foreign trade both imports and exports showed increases, while in the coasting trade there was a decrease under imports and an increase in exports. The ports of Negapatam, Bimlipatam and Vizagapatam showed a decline, but the volume of trade increased at Mangalore, Cuddalore, Tellicherry, Porto Novo, Cannanore and Badagara. The fluctuations at other subordinate ports were not abnormal.

Madras.

Tuticorin.

Cochin.

Cocanada.

Calicut.

PUBLIC WORKS—GENERAL. (1911–1912.)

[*Administration Report of the Public Works Department, Madras Presidency, for the year 1911–1912.*]

Administrative Changes.

603. The Hon'ble Mr. F. J. Wilson, C.I.E., retired on the 19th May 1911. The Hon'ble Mr. C. A. Smith, C.I.E., was confirmed as Chief Engineer and Secretary to Government, Public Works Department, and the Hon'ble Mr. H. E. Clerk as Chief Engineer for Irrigation. In order to relieve the Chief Engineer of some of the less important of his Secretarial duties and to prevent the accumulation of papers in the Secretariat when the Chief Engineer was absent on tour, a Deputy Secretary to Government was appointed for six months in the first instance and the period has since been extended by another year. In addition to the reorganization and

PRODUCTION AND DISTRIBUTION.

strengthening of the Superintending Engineers' drawing offices proposals with reference to the question of increasing and improving the Upper Subordinate establishment were submitted to the Government of India. An additional circle was formed as a temporary measure in September 1911, bringing the total number of circles up to seven, and the territorial limits of most of the other circles were modified in consequence.

Chief Engineer's Office.

Technical Section.

604. In the Technical section of the Chief Engineer's office 89 estimates of the aggregate value of Rs. 150·99 lakhs were scrutinised during the year, the distribution under various heads being :—roads and bridges (46) to cost Rs. 41·81 lakhs, water-supply (15) to cost Rs. 66·31 lakhs, drainage schemes (7) to cost Rs. 28·76 lakhs and miscellaneous schemes (21) to cost Rs. 14·11 lakhs. The most important water-supply schemes were for Madras City (Rs. 42·09 lakhs), Negapatam (Rs. 8·04 lakhs), Masulipatam (Rs. 4·50 lakhs), Berhampur (Rs. 3·64 lakhs) and Ellore (Rs. 3·17 lakhs). The largest drainage scheme scrutinised was that for Madura estimated to cost Rs. 20·72 lakhs. The most important estimates for bridges were those for the bridge at Panemangalore, South Canara district (Rs. 3·33 lakhs) and for the bridge across the Swarnamuki river in the North Arcot district (Rs. 1·50 lakhs). Among the miscellaneous schemes the construction of two new piers at Calicut was estimated to cost Rs. 4·53 lakhs, the filling of the northern arm of the Cooum River in Madras to cost Rs. 2·18 lakhs and the construction of the Tuticorin pile pier to cost Rs. 1·47 lakhs. In the Consulting Architect's Section 89 estimates and designs were scrutinised and 257 drawings prepared, among the latter being drawings for the new Forest College at Coimbatore, the Cannanore High School and the new chapel for the Lawrence Asylum at Ootacamund. Type-designs for Revenue Divisional offices, for first-class Taluk offices and Deputy Tahsildars' offices were revised during the year.

Consulting Architect.

CIVIL AND MILITARY WORKS. (1911–1912.)

Works in progress.

605. The aggregate estimated cost of Public Works (Major Works) under execution by officers of the Public Works Department during the year was as follows :—

	LAKHS. RS.
Buildings	104·67
Roads and bridges	13·45
Water-supply schemes	31·03
Drainage works	5·36
Port and Marine works	3·28
Other works	2·07
Total ...	159·86

The total expenditure for the year including expenditure from contributions was Rs. 56·83 lakhs as compared with Rs. 53·50 lakhs in the preceding year, Rs. 53·52 lakhs in 1909–1910, Rs. 21·50 lakhs in 1899–1900, and Rs. 25·19 lakhs in 1889–1890.

Buildings.

606. The new Council Chamber at Fort St. George and the Police Recruits' School at Coimbatore were completed during the year. Good progress was made in the construction of the new Collectors' offices at Vizagapatam and Guntūr; in the subsidiary and extra works necessary in connection with the Agricultural College and Research Institute; and in the extensions to the King Institute, Guindy. Work on the new Collector's office at Madura was stopped owing to the filing of a suit by the contractors.

Roads and bridges.

607. Progress was made on the Indravati bridge commenced last year, and on the Kodaikānal ghât road, where the cart-track has been completed and the construction of bridges begun. It is expected that the work will be complete by the end of March 1913. It has been decided to reconstruct, at a cost of a lakh of rupees, the bridge over the Bhavāni river at Mēttupālaiyam which was washed away by heavy floods in June 1911. A temporary bridge has been built and preliminary operations were commenced.

608. Good progress was made in the Berhampur water-supply scheme. The Salem water-supply works were completed and the pipe lines and the service reservoir have been delivered over to the municipality for maintenance. The Chidambaram and Negapatam water-supply schemes, estimated to cost Rs. 3·97 and 8·39 lakhs, respectively, were started during the year. **Water-supply.**

609. The new pile pier at Tuticorin was almost completed in the year, while the dredging work and marine survey were completed. Reclamation and other improvements to the port were in progress. The question of the proposed improvements to the port of Calicut was further considered by Government. Finally the merchants of the town preferred the construction of two piers and the proposal was accepted by the Landing and Shipping Fees Committee. An estimate of Rs. 4·56 lakhs for two piers has accordingly now been sanctioned. The further investigation of the Vizagapatam Harbour scheme was completed and a report on the subject submitted to Government. **Ports.**

610. The final grant under Military and Civil works was Rs. 52,24,834 and the actual expenditure, exclusive of contribution works amounting to Rs. 4,10,456, was Rs. 52,72,184. The largest item was, as usual, "Provincial Civil Works" amounting to Rs. 47,54,506. **Grants and Outlay.** **Military and Civil works.**

611. The value of the outturn of the Dowlaishwaram workshops during the year fell from Rs. 1,68,720 to Rs. 1,24,416. The decrease of Rs. 44,304 was chiefly due to the fact that less work was executed for the Public Works Department. The result of the year's working was a profit of Rs. 1,908. At the Bezwada workshops the value of the work done fell from Rs. 1,03,040 to Rs. 88,623, but the amount of work done in the preceding year was abnormal, and there was a decrease during the present year in construction work on punts and staff boats owing to the lack of sanctioned estimates and there were fewer requisitions under the head of Provincial Civil Works. The result of the year's working was a loss of Rs. 3,295 attributable mainly to the adjustment of a sum of Rs. 3,972 to "general charges". The value of the work done at the Presidency workshops also fell from Rs. 3,67,011 to Rs. 2,61,490, owing to the fact that the orders for work were not as valuable as in the preceding year. The number of work orders rose slightly from 2,117 to 2,119. **Workshops.** **Dowlaishwaram.** **Bezwada.** **Presidency.**

PUBLIC WORKS—RAILWAYS AND TRAMWAYS. (1911–1912.)

[*Administration Report of the Public Works Department, Madras Presidency, for the year 1911–1912; Statistics of British India, Part, III—Commercial Services.*]

612. The railway systems in the Madras Presidency are controlled by the Railway Board and there are no lines under the direct administration of the Madras Government. Two District Board lines—the Tanjore District Board Railway and the Bezwada-Masulipatam Railway—are subject to general control by the Government. **Control.**

613. During the year there were no additions to the open mileage of the railway systems in the Presidency, and the open mileage on the 1st April 1912 was the same as in the preceding year, amounting to 3,870·69 miles, distributed as 1,689·30 miles under broad gauge, 1,957·76 miles under metre gauge, 68·47 miles under narrow gauge, and 155·16 miles under District Board railways (metre gauge). The new lines from Bobbili to Salur and from Dharmapuri to Hosur were still under construction. **Mileage.**

614. The Bengal-Nagpur Railway completed a survey of 31·63 miles from Parlākimedi to Gunupur (2′ 6″ gauge) on behalf of the Court of Wards for the benefit of the Parlākimedi estate. The South Indian Railway completed a survey of 141·81 miles from Erode to Nanjangud, with a branch from Kottamangalam to Mēttupālaiyam (3′ $3\frac{3}{8}$″ gauge), and a survey of 39·15 miles from Quilon to Trivandrum (3′ $3\frac{3}{8}$″ gauge) on behalf of the Native State of Travancore. Surveys were in progress from Damtari *viâ* Bastar to Salur (260 miles, of which about 80 are in this Presidency) on a 2′ 6″ gauge; from Virudupatti to Tenkāsi (76·32 miles on 3′ $3\frac{3}{8}$″ gauge); and from Bowringpet to Kōlār (10 miles on 2′ 6″ gauge) in the State of Mysore. **Surveys.**

615. Good progress was made during the year on the links and connected works required to connect India with Ceylon. The Company has suggested the project of displacing the ferry service by the construction of a railway line along Adam's Reef, **Works.** **Indo-Ceylon connection.**

and detailed enquiries are being made to ascertain whether the heavy capital expenditure required would be justified. On the Madras and Southern Mahratta Railway the Pennar bridge at mile 109 on the north-east line was extended by 10 additional spans of 60 feet in place of 5 spans of 40 feet girders at the north end of the bridge, and the permanent way was strengthened and renewed at certain points on the north-east and north-west lines. Considerable additions were made to the Perambur workshops. The South Indian Railway Company proceeded with the relaying of the permanent way according to a fixed programme, and steady progress was made during the year. The work of strengthening the girders on the Pālār bridge and the construction of the Kadalundi bridge both approached completion. During the year the approval of the Home Board of the South Indian Railway to the general plans in connection with the transfer of the locomotive workshops to Trichinopoly has been received by the Agent, and the general scheme has been approved by the Railway Board. The estimate for the conversion of the Erode-Trichinopoly section to mixed gauge which has been submitted to the Home Board of the South Indian Railway is reported to be under revision.

Accidents and Breaches.

616. On the 18th April 1911 a goods train collided with the boat mail train on the South Indian Railway near Anantandavapuram station owing to the disregard of rules on the part of the assistant stationmaster at that place. Four passengers and one railway servant were injured and the rolling stock was seriously damaged. On the 15th September 1911 the up boat mail train collided with a passenger train at Sundaraperumalkoil station in the South Indian Railway through the negligence of the driver of the boat mail train. Twelve passengers were slightly injured. On the 24th September 1911, the station buildings and telegraph between Mandasa Road and Dusi Beach stations on the Bengal-Nagpur Railway were severely damaged by a cyclone on the east coast and several breaches were caused by floods, traffic being interrupted till the 30th September. On the Madras & Southern Mahratta Railway breaches on the north-east line caused a cessation of traffic from the 17th to the 21st October 1911. On the 20th December 1911 the Rāmēswaram-Dhanushkodi section of the South Indian Railway was breached in several places by heavy rain and high tides and through traffic was suspended for about seven days.

Contract.

617. An agreement, dated 15th September 1911, having effect from 1st January 1909, was entered into between the Secretary of State and the Madras and Southern Mahratta Railway Company for the maintenance and working of the Dhone-Kurnool Railway.

District Board Railways.

618. On the Tanjore District Board Railway the renewal of the second length of 4 miles on the Tiruvālūr-Mutupet section was completed during the year. Several District Board Railway projects are held in abeyance pending the conclusion with the South Indian Railway Company of an agreement for the construction and working of the Tanjore District Board Railway extensions. The Board of Directors of the South Indian Railway Company have proposed to the Secretary of State to promote a company on an unguaranteed basis, to be called the "Madras District Boards' Railway Company, Limited" for the absorption of all the existing and contemplated District Board lines in this Presidency within the sphere of the South Indian Railway Company. On the Bezwada-Masulipatam Railway an intermediate class was introduced experimentally from the 1st July 1911 but the results are reported to be not very satisfactory. During the year the Tanjore District Board Railway made a net profit of Rs. 3,35,058 or 6·9 per cent. on its capital outlay. The net profits of the Bezwada-Masulipatam Railway were Rs. 1,51,840 or 6·9 per cent. on the capital outlay.

Madras Electric Tramways.

619. During the year the Madras Electric Tramways worked a route mileage of 14 miles 5 furlongs and 123 yards, of which 3 miles 7 furlongs and 144 yards were provided with double tracks. The company had at their power station five engines with an aggregate of 1,351 horse-power to drive the electric generators and another of 20-horse power for lighting purposes, but these were not in use as current was obtained from the Madras Electric Supply Corporation. The rolling stock of the system consisted of 66 motorcars, 8 trailers, 1 bond testing car and 1 road metal carrying car and the average number in daily service was 55. The line continued to be worked on the overhead trolley system. During the official year 1911–1912 the cars covered 1,418,296 miles and carried 14,957,783 passengers.

PUBLIC WORKS—CANALS. (1911-1912.)

Receipts.

620. Navigation was carried on during the year 1911-1912 on the Chilka Lake canal, the Dumagudem canal, the Gōdāvari canals, the Kistna canals, the Kurnool-Cuddapah canal, the Buckingham canal and the Vēdāranniyam canal. The total receipts realised during the year amounted to Rs. 2,20,741 or Rs. 4,733 less than in the previous year. There was a fall in the receipts on the Gōdāvari and Dumagudem canals, while there was an increase on the Buckingham canal. On the Gōdāvari canals there was a decrease in the collection of annual and six weeks' licence fees as a smaller number of boats took out licences. The fall in the receipts on the Dumagudem canal is attributed to the unusually early closure of the canal during the year. The increase on the Buckingham canal was brought about by the construction of new boats and by the large amount of fees received for test-measurements.

Traffic.

621. Under the heads "Ton-mileage" and "Value of goods" there was a considerable increase during the year under review on the Gōdāvari canals. This is attributed chiefly to the fact that in previous years the figures of the Dowlaishweram head lock were accidentally not taken into account. There was also an increase of traffic in almost all classes of goods due apparently to the general prosperity of the country and the improved condition of the people. On the Kistna and Kurnool-Cuddapah canals there was an increase under "Ton-mileage" and a decrease under "Value of goods" as the quantity of goods carried was less but the distances over which they were conveyed were greater. In the case of the Buckingham canal there was a fall under both heads which was due to short traffic in rice, provisions, salt, firewood and timber. The early closure of the Dumagudem canal accounts for the decrease occurring under this canal. The decrease on the Vēdāranniyam canal is attributed to poor traffic in salt, rice, paddy and tobacco. The total number of passengers carried on all the canals during the year was more than double the number of the previous year. The increase was marked on the Gōdāvari and Buckingham canals. The increase on the Gōdāvari canals was mainly due to the fact that the figures of the Dowlaishweram lock were not taken into account during previous years, and to the large number of persons who travelled by boats on the Gostanadi, Velpur Bank and Junction and Undi canals. The increase on the Buckingham canal is ascribed to the large number of pilgrims carried for the Tirupōrūr festival.

PUBLIC WORKS DEPARTMENT—IRRIGATION. (1911-1912.)

[*Statistics of British India, Part III—Commercial Services.*]

Gross Expenditure and Revenue.

622. The expenditure incurred on, and the revenue derived from, irrigation works during 1911-1912 were Rs. 70,31,974 and Rs. 2,60,72,017 respectively. The area charged as irrigated was 7,124,661 acres.

Class I—Protective Major Works.

623. Of the four works sanctioned under this head, the Rushikulya system was in operation and the Venkatapuram project in the Kurnool district was under execution. A revised estimate for the Bhavanasi project in the Guntūr district, which was in abeyance, was sanctioned by the Government of India and the work put in hand during the year. The Mopad project in the Nellore district was still held in abeyance. The capital outlay incurred during the year under this head was Rs. 61,197, the bulk of which was incurred on the Venkatapuram project. The area irrigated under the Rushikulya system was 97,151 acres of first crop and 2,159 acres of second crop. The gross revenue and working expenses were Rs. 2,11,113 and Rs. 53,074 respectively against Rs. 2,13,841 and Rs. 44,798 in the preceding year. The net revenue under the head as a whole after deducting interest charges gives a deficit of Rs. 77,686 against Rs. 75,866 in the previous year.

Major Productive Works.

624. The total capital outlay on productive works amounted to Rs. 4,20,808 which was mainly incurred on the Nagavalli river project, the Gōdāvari and Kistna delta systems, the Pennēr river canals system, the Shatiatope and Lower Coleroon anicut systems and the Cauvery delta system. The revised estimates for the Nagavalli project were sanctioned by the Secretary of State during the year and

several important works were completed. The important works carried out in the Gōdāvari delta system were the improvements to the Yenamadurru drain, the reconstruction of a portion of the lower chamber wall of the Bobberlanka lock and the construction of a new second-class lock at Alamur. In the Kistna delta system the Appapuram drainage scheme and the excavation of the Vetapalam branch of the Jagarlamudi channel were completed. The draining of the Bāpatla swamp was in progress. The improvements to the Duvvur canal and the Kanigiri reservoir bund, Pennēr river canals system, were completed. A large outlay was incurred on the acquisition of lands liable to submersion in the bed of the Kanigiri reservoir. The improvements to the Viranam tank, the Vellar Raja voikal, and to the Ariagoshti and Manambuttu channels of the Shatiatope anicut system were in progress. In the Lower Coleroon anicut system work was in progress on widening and improving the Vadavar from its head to the Viranam tank. In the Cauvery delta system the construction of an apron in front of the Grand Anicut was in progress. The improvements to the Palavar and Adappar drainages were practically completed. The total area charged as irrigated was 3,008,450 acres under first crop and 461,424 acres under second crop against 2,944,459 acres under first crop and 387,225 acres under second crop in the previous year.

Revenue.

625. The gross revenue and working expenses amounted to Rs. 1,56,86,976 and Rs. 33,60,245 respectively against Rs. 1,50,53,151 and Rs. 34,69,492 in the previous year. The net revenue due to improvements was Rs. 82,96,490 which represents a return of 9·93 per cent. on the total capital outlay of Rs. 8·35 crores to the end of the year. The profit for the year after deducting interest charges was Rs. 56,30,031, the accumulated profits to the end of the year amounting to Rs. 13·39 crores. The gross revenue shows an increase of Rs. 6,33,825 when compared with that of the previous year. The increase occurred under all the systems except the Pennēr river canals and the Barur tank. The decrease under the Pennēr river canals occurred mainly under second crop and that under the Barur tank was principally due to the enhanced figure under revenue due to old irrigation recently fixed by the Government.

Expenditure.

626. There was a decrease of Rs. 1,09,247 under working expenses when compared with those of the previous year. It chiefly occurred under the Kistna delta system, the Pennēr river canals system, the Kurnool-Cuddapah canal and the Cauvery delta system. The difference in the case of the Kistna delta system was due to extensive repairs carried out to canals and distributaries during 1910–1911. In the Pennēr river canals system the progress of maintenance works was considerably retarded by the prevalence of cholera. In the case of the Kurnool-Cuddapah canal the outlay on special repairs was much reduced owing to the better conditions of the canal. The difference under the Cauvery delta is due to the extra expenditure during 1910–1911 at the Grand Anicut in putting up ring bunds.

Remissions.

627. The remissions granted both under Protective and Productive works were Rs. 16,977 and Rs. 52,549 against Rs. 3,352 and Rs. 78,580 in the previous year.

Class II—Minor Works and Navigation.

628. The capital outlay incurred during the year on Minor Works and Navigation was Rs. 1,49,424 (direct and indirect) the major portion of which was incurred on the Siddapur and Kocheruvu projects in the Kurnool district, the Yellanur project in the Bellary district and the Nagavaram anicut and supply channel in the Cuddapah district. The area charged as irrigated by this class was 200,140 acres first crop and 71,363 acres second crop against 263,247 acres and 95,284 acres respectively of the previous year. The gross revenue and working expenses amounted to Rs. 14,04,004 and Rs. 3,85,386 respectively against Rs. 14,05,394 and Rs. 3,25,620 in the preceding year. The net revenue due to improvements on this class of works fell from Rs. 4,53,631 to Rs. 4,16,304. The remissions granted during the year amounted to Rs. 50,846 against Rs. 6,235 in the previous year. The bulk of the remissions was granted under the Pālār anicut system, the Cumbum tank, the Sagileru system and the Ponnalur tank.

Classes III and IV.

629. The outlay under these classes of works amounted to Rs. 25,37,816 including the outlay incurred by Civil officers and accounted for by the Civil Department. The area charged as irrigated was 3,203,975 acres. The total revenue derived amounted to Rs. 87,15,160 including Rs. 35,555 collected in the

Public Works Department. The remissions granted were Rs. 9,88,624 against Rs. 3,32,904 in the previous year.

Tank Restoration Scheme.

630. The total area of minor basins entered upon at the beginning of the year was 80,055 square miles, of which 67,190 square miles had been completed. The figures were during the year under review increased by 976 square miles and 3,138 square miles respectively, thus bringing the total to 81,031 square miles entered upon and 70,328 square miles investigated. The average area of cultivation under all works in the Presidency to be investigated under the Tank Restoration scheme [classes IV (*a*) and IV (*b*) works] is calculated to be about two and a quarter millions of acres. Of this acreage, works commanding about 1·04873 millions of acres of irrigation or about 46·61 per cent. of the total have been investigated under the Tank Restoration Scheme up to the 31st March 1912 leaving on that date a balance of works commanding 1·20126 millions of acres of irrigation to be investigated. The estimates sanctioned for Government works during the year amounted to Rs. 4,23,551 against Rs. 3,36,350 in 1910–1911. The total amount of estimates sanctioned for Government works from the beginning of Tank Restoration Scheme operations up to the end of the year was Rs. 1,14,42,625 against which the total expenditure incurred on works was Rs. 95,47,813 or Rs. 1,18,54,994 including establishment and tools and plant charges. The expenditure during the year amounted to Rs. 3,93,163 for "works."

Class V—Agricultural Works.

631. The revenue realised during the year was Rs. 54,764 against Rs. 52,410 in the previous year. The outlay incurred on these works amounted to Rs. 6,13,444 against Rs. 6,02,920 in the previous year.

Investigation of Projects.

Cauvery reservoir.

Kistna reservoir.

632. Sanction was not received during the year to the revised estimate for the Cauvery reservoir project submitted to the Government of India in the previous year. The plans and estimates for the Kistna reservoir project were under scrutiny in the office of the Chief Engineer for Irrigation. The plans and estimates of the Gudempad and Toludur projects were under revision in the office of the Chief Engineer for Irrigation. The Gazuladinne, Kistnapuram, Velgode and Itodu projects and the Kurnool-Cuddapah canal improvements were under investigation by the Superintending Engineer, III Circle.

Small projects.

633. There were several small projects under investigation during the year. In the Ganjām division the possibility of improving the Jayamangalam channel and Koratholi Tampara was investigated. Estimates for the excavation of the Girisola channel and for the extension of the Nagarikatakam channel were under preparation. The preparation of plans and estimates for an anicut across the Johoro and a supply channel to the Surada reservoir was taken up. In the Gōdāvari Western division the investigation of irrigation by pumping from the Yenamadurru drain was started. The investigation of the minor distributaries of the Maidkur channel in the Cuddapah division was completed. The Aliyar project in the Coimbatore district was under investigation. In the Nellore division the proposal to carry a supply channel from the Chippaleru into the Timmalapenta was investigated and abandoned. Levels were taken in connection with the diversion of the surplus of the Kanigiri reservoir into the Penner. In the South Arcot division gaugings were made to ascertain the quantity of water available for the Tinnel project which provides for the construction of an anicut across the Pombay river. Information was collected as regards the quantity of water available for the Gidangal, Sevur and Reddikuppam projects. The Thambipettai Odai and Sengal Odai projects for the construction of two anicuts to command about 500 acres of wet land under each anicut were under investigation. In the Trichinopoly division investigation was made for improvements to the Iyen and Peruvalai channels and the Kulittalai Kattuvari. In the Tinnevelly division detailed plans and estimates were prepared for the Vilathikulam project and preliminary surveys for the Ottappidāram-Periyakulam project were completed.

Miscellaneous.

Floods.

634. During the year under review the highest flood of the Gōdāvari over the Dowlaishweram anicut was 12·2 feet on the 27th September 1911, the recorded maximum being 16·25 feet on the 23rd October 1911. The Kistna rose to 9·2 feet on the crest of the anicut at Bezwada, against the recorded maximum height of 23·5 feet on the 7th October 1903. The highest flood in the Bhavani was 2·71 feet on the crest of the Kalingarayan anicut, the recorded maximum being 3·85 feet in July 1882. Owing to heavy rainfall in Mercara and other places in the basin, the

floods in the Cauvery were abnormal, the highest being 14·67 feet on the Cauvery dam against the maximum recorded depth of 14·00 feet in 1896. The Vaigai rose to 10·5 feet on the sill of the Peranai regulator with all the shutters raised 3·5 feet. There were no floods of importance in other rivers. In September 1911 there was a heavy flood in the Nagavalli river resulting in the collapse of the rear left wing of the regulator of the Nagavalli project and the destruction of one of the shutters. Owing to the floods in the Bhavani breaches occurred in the Kalingarayan anicut and in the flood banks of the Bhavani, Coleroon and Cauvery. There were breaches in the Mahanadi and Rushikulya canals in the Ganjām division and the Chepad and Maidkur channels in the Cuddapah division.

Breaches.

Character of the season.

635. The rainfall was less than the average for the previous five years. The south-west monsoon was not favourable, but the north-east monsoon was less unfavourable.

Velocity and gauging observations.

636. Observations were made in the Gōdāvari, Kistna Eastern and Western, Nellore, South Arcot, Cauvery, Vennar and Tinnevelly divisions with a view to ascertain (1) the velocity of approach at anicuts, (2) the critical velocity in channels and (3) the value of the co-efficient of rugosity, but the results were on the whole inconclusive and arrangements are therefore being made to continue the observations during the year 1912–1913. Observations in connection with rainfall readings and river discharges were continued during the year in Ganjām, Guntūr, Nellore, Kurnool, Cuddapah, Bellary, Coimbatore, Salem, South Arcot, Madura and Tinnevelly divisions.

Preparation of delta maps.

637. Block maps of the Gōdāvari and Kistna deltas were printed during the year. As these maps have been found useful, proposals were under consideration to prepare similar maps for the Cauvery delta and the Periyār system.

CHAPTER V.

REVENUE AND FINANCE. (1911-1912.)

REVENUE AND FINANCE OTHER THAN MUNICIPAL.

(*a*) Gross Revenue.

638. The following statements exhibit the receipts and charges on account of Imperial and Provincial funds during each of the past two years:— **Receipts and Expenditure.**

Imperial and Provincial Funds Receipts.

Principal heads of revenue.	Imperial.		Provincial.		Total.	
	1910-1911.	1911-1912.	1910-1911.	1911-1912.	1910-1911.	1911-1912.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Land Revenue	3,16,26,859	3,06,55,484	3,44,95,711	3,63,33,944	6,61,22,570	6,69,89,428
II. Opium	4,19,602	4,33,109	...	...	4,19,602	4,33,109
III. Salt	1,08,64,310	1,07,48,794	...	...	1,08,64,310	1,07,48,794
IV. Stamps	60,57,941	63,62,708	60,57,940	63,62,708	1,21,15,881	1,27,25,416
V. Excise	1,38,86,821	1,50,32,087	1,38,86,822	1,50,32,087	2,77,73,643	3,00,64,174
VII. Customs	73,75,011	79,70,539	...	...	73,75,011	79,70,539
VIII. Assessed Taxes—						
Civil	15,40,873	15,84,734	15,40,872	6,02,855	30,81,745	31,87,589
Public Works Department ...	42,874	19,006	...	...	42,874	19,006
IX. Forest	19,40,205	...	19,40,206	41,65,953	38,80,411	41,65,953
X. Registration	...	...	19,28,417	20,57,719	19,28,417	20,57,719
XI. Tributes	44,96,519	44,96,519	...	...	44,96,519	44,96,519
XII. Interest	5,44,637	5,38,543	4,18,946	4,42,611	9,63,583	9,81,154
Receipts by Civil Department.						
XVI. Law and Justice—						
A. Courts of Law	...	...	9,44,878	9,22,333	9,44,878	9,22,333
B. Jails	...	...	5,50,962	,63,989	5,50,962	4,63,989
XVII. Police	...	...	4,64,526	4,75,445	4,64,526	4,75,445
XVIII. Ports and Pilotage	...	...	...	105	...	105
XIX. Education	...	...	2,25,336	3,22,840	2,25,336	3,22,840
XX. Medical	...	...	1,24,719	1,27,362	1,24,719	1,27,362
XXI. Scientific and other Minor Departments	...	...	6,50,363	6,41,544	6,50,363	6,41,544
Miscellaneous.						
XXII. Receipts in aid of Superannuation	1,31,057	1,15,343	85,887	87,537	2,16,944	2,02,880
XXIII. Stationery and Printing ...	20,749	17,453	1,14,164	1,03,898	1,34,913	1,21,351
XXV. Miscellaneous	61,956	83,820	3,10,584	3,29,036	3,72,540	4,12,856
Railways.						
XXVI. State Railways (gross receipts).	5,78,53,492	6,37,72,686	...	...	5,78,53,492	6,37,72,686
Deduct Working expenses ...	3,50,84,098	3,65,24,143	...	...	3,50,84,098	3,65,24,143
Net receipts	2,27,69,394	2,72,48,543	...	...	2,27,69,394	2,72,48,543
XXVIII. Subsidised companies (repayment of advances of interest).	1,65,566	1,46,093	...	...	1,65,566	1,46,093
Revenue from Productive Public Works.						
XXIX. Irrigation and Navigation ...	1,34,410	1,25,745	1,34,410	1,25,745	2,68,820	2,51,490
Receipts from Public Works not classified as Productive (direct receipts).						
XXX. Minor Works and Navigation in charge of—						
Civil Officers	...	...	13,743	11,613	13,743	11,613
Public Works Officers ...	...	...	1,94,663	2,01,971	1,94,663	2,01,971
XXXI. Civil Works in charge of—						
Civil Officers	...	...	7,844	8,059	7,844	8,059
Public Works Officers ...	6,211	5,905	2,36,805	2,60,871	2,43,016	2,66,776
XXXIV. Military Works	5,879	4,061	...	...	5,879	4,061
Total ... { Civil	7,91,50,035	7,81,89,789	6,43,27,798	7,00,80,225	14,34,77,833	14,82,70,014
{ Non-civil	2,29,40,839	2,73,98,697	...	...	2,29,40,839	2,73,98,697
Grand total ...	10,20,90,874	10,55,88,486	6,43,27,798	7,00,80,225	16,64,18,672	17,56,68,711

Imperial and Provincial Fund Charges.

Heads of account.	Imperial.		Provincial.		Total.	
	1910-1911.	1911-1912.	1910-1911.	1911-1912.	1910-1911.	1911-1912.
	RS.	RS.	RS.	RS.	RS.	RS.
1. Refunds and drawbacks	2,88,498	3,02,702	1,87,596	2,15,670	4,76,094	5,18,372
2. Assignments and compensations ...	9,20,024	10,64,669	2,69,455	2,72,167	11,89,479	13,36,836
3. Land revenue	...	...	1,27,50,336	1,29,40,619	1,27,50,336	1,29,40,619
5. Salt	16,66,971	17,30,307	...	...	16,66,971	17,30,307
6. Stamps...	2,15,225	2,23,986	2,15,225	2,23,987	4,30,450	4,47,973
7. Excise	8,87,017	8,90,883	8,87,017	8,90,883	17,74,034	17,81,766
9. Customs	3,65,703	3,87,300	...	...	3,65,703	3,87,300
10. Assessed taxes	17,747	18,529	17,748	18,529	35,495	37,058
11. Forest	16,12,901	...	16,12,900	34,14,882	32,25,801	34,14,882
12. Registration	...	...	12,02,785	12,48,324	12,02,785	12,48,324
13. Interest	...	...	3,14,732	3,16,731	3,14,732	3,16,731
14. Interest on other obligations—						
Civil Officer	48,803	37,898	...	...	48,803	87,898
Public Works Officers	36,853	16,771	...	...	36,853	16,771
18. General administration	3,11,942	4,41,412	12,55,462	18,25,019	15,67,404	22,66,431
19. Law and Justice—						
A. Courts of Law	...	...	59,22,747	62,19,433	59,22,747	62,19,433
B. Jails	...	...	15,09,425	14,03,151	15,09,425	14,03,151
20. Police	...	...	80,45,389	84,55,799	80,45,389	84,55,799
21. Ports and Pilotage	...	...	22,112	21,138	22,112	21,138
22. Education	...	...	39,86,111	45,66,393	39,86,111	45,66,393
23. Ecclesiastical	3,37,659	3,58,006	...	...	3,37,659	3,58,006
24. Medical	...	...	18,22,160	17,98,320	18,22,160	17,98,320
25. Political	16,710	13,436	96,421	1,02,551	1,13,131	1,15,987
26. Scientific and other minor departments.	64,305	1,93,029	13,82,185	13,27,197	14,46,490	15,20,226
27. Territorial and political pensions ...	3,77,369	3,24,861	...	...	3,77,369	3,24,861
28. Civil furlough and absentee allowances.	3,957	1,801	...	...	3,957	1,801
29. Superannuation and retired allowances	20,360	27,834	25,28,021	25,98,314	25,48,381	26,26,148
30. Stationery and printing	7,60,524	5,74,665	14,96,004	15,53,764	22,56,528	21,28,429
32. Miscellaneous	40,883	44,389	3,77,684	3,67,986	4,18,567	4,12,375
33. Famine relief ... { Civil Officers ...	— 10	...	...	...	—10	...
{ P.W. Officers ...	...	14,622	...	...	...	14,622
34. Construction of protective railways ...	4,00,970	4,37,688	...	...	4,00,970	4,37,688
35. Do. irrigation works ...	69,674	61,791	...	...	69,674	61,791
36. Reduction or avoidance of debt	...	...	2,50,000	2,50,000	2,50,000	2,50,000
38. State Railways—						
Interest on capital deposited by companies	...	...	...	...	...	...
39. Guaranteed companies	...	...	...	...	...	...
40. Subsidised companies	1,592	4,274	...	...	1,592	4,274
41. Miscellaneous railway expenditure ...	3,21,391	1,26,921	...	...	3,21,391	1,26,921
42. Irrigation major works—						
Public Works Officers (Working Expenses)	11,78,609	10,92,998	11,78,610	10,92,998	23,57,219	21,85,996
Interest on debt	14,02,373	14,23,009	14,02,373	14,23,009	28,04,746	28,46,018
43. Irrigation minor works—						
In charge of Public Works officers ...	16,888	9,661	31,74,941	29,91,268	31,91,829	30,00,929
Do. Civil officers	...	...	5,66,436	5,70,710	5,66,436	5,70,710
45. Civil works—						
In charge of Public Works officers ...	4,04,501	4,16,492	59,01,460	60,75,234	63,05,961	64,91,726
Do. Civil officers	...	...	36,36,080	49,68,655	36,36,080	49,68,655
47. Military works	86,456	76,735	...	...	86,456	76,735
48. State Railways	23,92,171	33,84,617	...	...	23,92,171	33,84,617
49. Irrigation works	7,01,308	4,03,628	...	...	7,01,308	4,03,628
Total { Civil ...	1,17,66,794	1,01,24,679	6,20,11,415	6,71,51,731	7,37,78,209	7,72,76,410
Total { Non-civil ...	32,02,580	40,30,235	...	...	32,02,580	40,30,235
Total expenditure ...	1,49,69,374	1,41,54,914	6,20,11,415	6,71,51,731	7,69,80,789	8,13,06,645
Surplus or Deficit { Imperial ...	+ 8,71,21,500	+ 9,14,33,572	...	...	+ 8,71,21,500	+ 9,14,33,572
Surplus or Deficit { Provincial ...	...	...	+ 23,16,383	+ 29,28,494	+ 23,16,383	+ 29,28,494
Total Surplus + or Deficit-- ...	+ 8,71,21,500	+ 9,14,33,572	+ 23,16,383	+ 29,28,494	+ 8,94,37,883	+ 9,43,62,066
Grand Total ...	10,20,90,874	10,55,88,486	6,43,27,798	7,00,80,225	16,64,18,672	17,56,68,711

Including the service receipts and charges of the Civil and Public Works Departments, but excluding the figures relating to the Army, the Post Office and Telegraph Department and the Home accounts as well as those relating to Debt and Foreign transactions, the gross revenue of the Presidency during the year under review amounted to Rs. 17,56,68,711 and exceeded that of the previous year by Rs. 92,50,039. Similarly the gross expenditure rose from Rs. 7,69,80,789 in 1910–1911 to Rs. 8,13,06,645 in 1911–1912. The figures for the year under report are however subject to alteration until the Finance and Revenue Accounts of the Government of India are finally made up by the Comptroller-General.

Surplus Revenue.

639. The surplus of the year amounted to Rs. 9,43,62,066 and was higher than that of 1910–1911 by Rs. 49,24,183. This was the net result of an increase of Rs. 92,50,039 in receipts and of Rs. 43,25,856 in expenditure. The improvement in revenue was mainly under Railways (Rs. 44·75 lakhs), Excise (Rs. 23 lakhs), Land Revenue (Rs. 8·50 lakhs), Stamps (Rs. 6 lakhs) and Customs (Rs. 6 lakhs); while the excess expenditure was mainly under Civil Works in charge of Civil officers (Rs. 13·25 lakhs), construction of State Railways (Rs. 10 lakhs), General

Administration (Rs. 7 lakhs), Education (Rs. 6 lakhs), Police (Rs. 4 lakhs), Courts of Law (Rs. 3 lakhs), Land Revenue (Rs. 2 lakhs), and Forest (Rs. 2 lakhs).

640. The year opened with a cash balance of Rs. 327 lakhs held in the Reserve Treasury, the Revenue Treasuries and in the Bank of Madras and its branches and closed with a balance of Rs. 353 lakhs. **Cash Balances.**

(*b*) Imperial Revenue and Finance.

641. The total receipts on account of Imperial revenue as exhibited in the statement given above were greater than those of 1910–1911 by Rs. 34,97,612. This improvement was due to increases mainly under State Railways (Rs. 44·75 lakhs), Excise (Rs. 11·50 lakhs), Customs (Rs. 6 lakhs), Stamps (Rs. 3 lakhs), partly counterbalanced by decreases under Land Revenue (Rs. 9·75 lakhs) and Forest (Rs. 19·50 lakhs), the large decrease under the latter being due to the provincialisation of the receipts and charges of the Forest Department with effect from 1911–1912. The Imperial expenditure on the other hand, was less than that of 1910–1911 by Rs. 8,14,460 which was the net result chiefly of an increase of 10 lakhs under "48. State Railways" and a decrease of 16 lakhs under Forest due to the provincialisation of the charges under that head with effect from 1911–1912. The incidence of taxation per head of population was Rs. 3–2–4 in 1911–1912 as against Rs. 3–2–6 in the previous year. **General.**

642. The receipts from Land Revenue amounted to Rs. 6,69,89,428 and were higher than those of 1910–1911 by Rs. 8,66,858. The increase was chiefly in the districts of Nellore (Rs. 4,07,000), Chingleput (Rs. 3,48,000), Kistna (Rs. 2,08,000), Coimbatore (Rs. 1,67,000) and Tinnevelly (Rs. 1,54,000). The increase in Nellore was due to the prompt collection of revenue and to the collection of arrears, while that in Chingleput, Coimbatore and Tinnevelly was due to the introduction of re-settlement rates in those districts. In Kistna the increase was due to the extension of irrigation and the levy of an enhanced water-rate in certain tracts. Against the above increase should be considered a decrease of Rs. 2,18,000 in the Chittoor and North Arcot districts due to an adverse season and the grant of season remissions. The incidence of taxation per head of population amounted to Rupees 1–9–11 as against Rs. 1–11–5 in 1910–1911, being highest in the district of Guntūr and lowest in Vizagapatam. The charges under Land Revenue being purely Provincial are dealt with in the Provincial section. **Land Revenue.**

643. The canal revenue collected during the year under review amounted to Rs. 2,20,741 or Rs. 4,733 less than in the previous year. **Canal Revenue.**

644. The revenue under this head is sub-divided into "Sea Customs" and "Land Customs." The receipts under "Sea Customs" exclusive of import duty on salt which is credited to "Salt" amounted to Rs. 76,68,360 as against Rs. 71,43,964 in 1910–1911. The increase of Rs. 5,24,396 was chiefly under export duty (Rs. 76,574) and import duty (Rs. 4,34,188). The increase in export duty was due to larger exports of paddy and rice to Ceylon and the Reunion through the diversion of the Burma trade from these markets, while that in imports occurred chiefly under cotton goods, manufactured articles and spirits and liquors, the increase under the last head being due to larger clearances from bond in anticipation of a probable increase in the rates of duty. The receipts under "Land Customs" amounted to Rs. 3,02,179 as against Rs. 2,31,047 in the previous year. The incidence of taxation per head of population was As. 3 as compared with As. 2–10 in the previous year. The total charges amounted to Rs. 3,87,300 as against Rs. 3,65,703 in 1910–1911, the increase being due mainly to the payment of the Royal bonus and to larger payments of over-time fees. **Customs.**

645. Bengal opium is supplied for consumption in this Presidency from the Government Store-houses at Patna and Ghazipur at a uniform rate of Rs. 8–8–0 per seer and the value at this rate is credited to "Opium" as the cost price of opium sold in the Excise Department. The difference between this rate and that at which the opium is sold to licensed vendors is credited to "Excise" as "Gain on sale-proceeds of excise opium." The credit to the former head during the year under review amounted to Rs. 4,33,109 and was more than that of the previous year by Rs. 13,507 owing to increased issues of opium to Native States. The gain on sale-proceeds amounted to Rs. 10,02,089 as against Rs. 9,68,469 in the previous year, the excess being due to the cause mentioned above. The shop rentals and **Opium.**

miscellaneous revenue credited to excise amounted to Rs. 4,87,332. The total realizations of opium revenue by the Excise Department thus amounted to Rs. 14,89,421 as against Rs. 13,92,524 in the previous year. The incidence of taxation per head of population amounted to 7 pies as against 6 pies in 1910–1911. The charges amounted to Rs. 3,664 as against Rs. 3,863 in the previous year.

Salt.

646. There were in existence 45 excise factories during the year while the number of Government factories rose from 19 in the previous year to 20 in the year under review owing to the opening of a model saltern at Vayalur. All the factories were worked except four where there was no manufacture in consequence of the large stock in hand. The quantity of salt manufactured was 11,284,102 maunds as against the average annual outturn of 10,754,311 maunds in the previous five years. The quantity manufactured under the excise system was 6,692,459 maunds and that under the monopoly system was 4,591,643 maunds. The quantity of duty paid salt imported from Bombay increased from 1,347,035 maunds in 1910–1911 to 1,382,672 maunds in 1911–1912. The quantity of duty-bearing salt imported by sea was 3,212 maunds against 3,836 maunds imported last year, and was chiefly from the United Kingdom. The total issues for home and inland consumption amounted to 11,784,568 maunds as against 11,648,950 maunds in 1910–1911. 130,818 maunds of powdery salt were exported to the Straits Settlements as against 127,108 maunds in the previous year. The total available stock of Government and Excise salt at the end of the year amounted to 8,619,459 maunds as against 7,982,616 maunds in the previous year. The revenue realized during the year amounted to Rs. 1,07,48,794 and was less than that of 1910–1911 by Rs. 1,15,516 owing to smaller realizations from cash and credit sales. The incidence of taxation per head of population amounted to As. 3–8 as in the previous year. The charges amounted to Rs. 17,30,307 as against Rs. 16,66,971 in the previous year, the increase occurring chiefly under purchase of salt and charges for conveying and storing salt.

Excise (Abkāri).

647. The excise revenue rose from Rs. 2,63,81,119 in 1910–1911 to Rupees 2,85,74,753 in 1911–1912, owing mainly to increased consumption of country spirits. The incidence of taxation per head of population amounted to As. 11 against As. 10–2 in the previous year. The charges amounted to Rs. 17,78,102 against Rs. 17,70,171 in 1910–1911.

Stamps.

648. The revenue under this head rose from Rs. 1,21,15,881 in 1910–1911 to Rs. 1,27,25,416 in the year under report. The increase was due to a rise in litigation and to a normal expansion of revenue. The incidence of taxation per head of population was As. 4–11 as against As. 4–8 in the previous year. The charges amounted to Rs. 4,47,973 as against Rs. 4,30,450 in 1910–1911.

Assessed Taxes.

649. The receipts on account of income-tax amounted to Rs. 32,06,595 as against Rs. 31,24,619 in the previous year. The incidence of taxation was As. 1–2·87 per head as against As. 1–2·59 in the previous year. The charges amounted to Rs. 37,058 as against Rs. 35,495 in 1910–1911.

Other Imperial Receipts.

650. Imperial receipts from other sources amounted to Rs. 3,27,82,025 and were higher than those of 1910–1911 by Rs. 44,45,647. The increase was almost entirely in the net traffic receipts of State Railways and occurred both under the Madras and Southern Mahratta Railway and the South Indian Railway. In the case of the former the increase was due to (1) expansion of coaching traffic, (2) larger movements of food-grains, oil-seeds, coal, manganese ore, cotton seeds and timber. That under the latter was due to the introduction of convenient train service and to a large increase in the quantity of cotton and food-grains carried over the line.

Other Imperial Expenditure.

651. The expenditure from Imperial funds under the heads other than those dealt with above amounted to Rs. 1,09,03,909 and was more than that of the previous year by Rs. 7,00,099. This excess is made up of increases chiefly under 48. State Railways (10 lakhs), Assignment and Compensation (1·50 lakhs), General Administration (1·25 lakhs) and Scientific and other minor departments (1·25 lakhs) partly counterbalanced by decreases under 49. Irrigation (3 lakhs), 41. Miscellaneous Railway expenditure (2 lakhs) and under Stationery and Printing (1·75 lakhs). The increase under State Railways occurred chiefly under the Madras and Southern Mahratta Railway and the South Indian Railway while that under Assignment and Compensation was due to the enhanced Customs Compensation paid to the Cochin State. The amalgamation of the office of the late Examiner of Public Works Accounts with that of the Accountant-General, Madras, caused the

increase under General Administration, while that under Scientific and other minor departments was due to the charges on account of the census of 1911. The decrease under 49. Irrigation was due mainly to the want of sanctions to estimates for works and to the write-back of outlay on certain works from capital to revenue in the Periyār system and that under Miscellaneous Railway Expenditure was caused by smaller outlay on the survey for the projected Erode-Nanjangud Railway and the Rajahmundry-Sironcha Railway. The decrease under Stationery and Printing was due to smaller purchases of articles of stationery in the year under review.

652. The opening balance on 1st April 1911 was Rs. 1,30,17,115. Loans to the extent of Rs. 2,40,534 were made during the year. The repayments amounted to Rs. 1,46,470, thus leaving a net payment of Rs. 94,064 which raised the total outstanding at the end of the year to Rs. 1,31,11,179. Of the loans made during the year the following are the more important :— **Imperial Loans.**

	Rs.
(*a*) To the Madras Port Trust for Harbour extension works ...	60,354
(*b*) To the Madras Corporation for drainage scheme ...	1,50,000
(*c*) To the Bangalore Municipality	80,000

The chief items of repayment were (*a*) Rs. 52,333 by the Port Trust towards its old debt, (*b*) Rs. 28,971 by the Tanjore District Board towards the Board's railway loan, (*c*) Rs. 30,164 by the Madras Corporation, and (*d*) Rs. 21,828 by the Madras Coast Lights Fund. For the repayment of the old loan of Rs. 14,30,000 taken by the Madras Corporation, a sinking fund has been constituted and the instalment due to the fund during the year, viz., Rs. 28,600 was duly paid. On the 31st March 1912, the sinking fund held Government Securities of the nominal value of Rs. 12,32,100.

(*c*) Revenue and Finance other than Imperial.

653. The Provincial accounts opened with a balance of Rs. 1,55,90,102 on 1st April 1911. The transactions of the year resulted in a surplus of Rs. 29,28,494, bringing the closing balance on 1st March 1912 to Rs. 1,85,18,596. The surplus was the net result of an aggregate revenue of Rs. 7,00,80,225 and a total expenditure of Rs. 6,71,51,731 and included special assignments from Imperial to Provincial revenue of Rs. 40,06,000, of which the more important were (*a*) Rs. 25,00,000 on account of a grant to the Madras Corporation for expenditure on drainage and water works schemes, (*b*) Rs. 8,00,000 for sanitation and (*c*) Rs. 6,50,000 for agriculture and other allied objects. **Provincial Revenues.**

654. The comparison of the total Imperial and Provincial revenue under this head for the year 1911–1912 and the year previous is made in the Imperial section of this chapter. The charges under land revenue amounted to Rs. 1,29,40,619 and exceeded those of the previous year by Rs. 1,90,283 owing chiefly to the payment of the Royal bonus, the revision of village establishment and the formation of the new Chittoor district from 1st April 1911. The explanation given in connection with the variations in the receipt and charges under Stamps, Excise, and Assessed Taxes in the Imperial section apply also to the variations under the same heads in the Provincial section. **Land Revenue.**

655. The receipt and expenditure under Forests which were formerly divided between Imperial and Provincial were made wholly Provincial with effect from 1911–1912. The total receipts of the Forest Department during the year amounted to Rs. 41,65,953 and were better than those of the previous year by Rs. 2,85,542 owing chiefly to a more favourable market than in the previous year for timber, firewood, charcoal and other minor produce. The total expenditure amounted to Rs. 34,14,882 as compared with Rs. 32,25,801 in the previous year. **Forests.**

656. The receipts under Registration amounted to Rs. 20,57,719 and exceeded those of the previous year by Rs. 1,29,302 owing chiefly to the facilities afforded by the opening of new registration offices during the year and to a rise in the number of registrations due to larger borrowings as the result of an unfavourable season. The charges amounted to Rs. 12,48,324 and were more than those of the previous year by Rs. 45,539, the excess being due to the payment of the Royal bonus and the opening of new sub-registry offices. **Registration.**

657. The Provincial receipts under the remaining heads amounted to Rs. 45,24,959 and were greater than those of the previous year by Rs. 47,129. **Other Provincial receipts.**

This improvement is the net result of an increase of Rs. 1,86,527 under ten heads counterbalanced by a decrease of Rs. 1,39,398 under six heads. The increases are chiefly under interest (Rs. 23,665), Police (Rs. 10,919), Education (Rs. 97,504), Miscellaneous (Rs. 18,452) and Civil Works in charge of Public Works Officers (Rs. 24,066). The recoveries of interest on land improvement and agricultural loans exceeded those in 1910–1911. The increase under Police occurred under fines on stray cattle, while that under Education was due to an increase in the attendance at the Presidency and Law Colleges and also to the credit of Rs. 56,000 to this head on account of the sale-proceeds of the chrome-tanning factory sold to the Rewah Darbar. The recovery of larger fees on account of the Wards' Estate Audit establishment in the Accountant-General's office and the realization of arrear contributions from the Court of Wards section of the Board's office account for the increase under Miscellaneous, while that under Civil Works in charge of Public Works Officers was due to the fact that the Public Works Workshops showed a profit in the year under review as against a loss in the previous year and that the receipts from fees on account of boring and testing artesian wells by the Director of Industries were higher. In considering the decreases it is found that they occur chiefly under Courts of Law (Rs. 22,545), Jails (Rs. 86,973), Scientific and other minor departments (Rs. 8,819), Stationery and Printing (Rs. 10,266) and Irrigation (Major works) Direct receipts (Rs. 8,665). The decrease under Courts of Law was due to diminished receipts on account of translation and printing fees of the High Court and to the abolition of the second-grade Pleadership examination; while a smaller number of orders for manufactured articles from the Police Department account for the decrease under Jails. The decreases under the remaining heads are small and were not brought about by any special causes worthy of note.

Other Provincial expenditure.

658. The expenditure in the Provincial section under the heads other than those already dealt with amounted to Rs. 4,84,14,507 and exceeded that of the previous year by Rs. 30,89,103. The excess was the net result of an increase of Rs. 35,54,162 under fourteen heads and a decrease of Rs. 4,65,059 under seven other heads. The largest increase occurred under Civil Works in charge of Civil Officers (Rs. 13·25 lakhs) and was due chiefly to the payment of special grants to local bodies for the construction of roads and bridges and of special contributions towards sanitation, education and the construction of hospitals and dispensaries. The payment of increased teaching grants to elementary schools and of larger subsidies to local boards account for an increase of nearly 6 lakhs under Education, while the increase of nearly 5·75 lakhs under General Administration was due chiefly to the Delhi Coronation Darbar and the payment of the Royal bonus. Under Police there was an increase of a little over 4 lakhs which occurred chiefly under District Executive Force as a result of the reorganization and reform schemes and under Courts of Law there was an increase of 3 lakhs due mainly to the appointment of two additional Puisne Judges to the High Court and of two additional Sub-Judges to Civil and Sessions Courts, the establishment of temporary Sub-Judges' and District Munsifs' Courts at Rajahmundry, Masulipatam and Gōdāvari, the payment of the Royal bonus and to increased expenditure under process-serving and copyists' establishments. The increases under the remaining heads are trifling and were not due to any special causes. Of the decrease of nearly 4·75 lakhs, one lakh occurred under Jails and nearly two lakhs under Minor Irrigation Works in charge of Public Works Officers, the balance being made up of trifling decreases under the remaining heads. The decrease under Jails was due chiefly to savings under "Dietary charges" owing to smaller prison population and to smaller expenditure than in the previous year under "Jail manufactures" owing to the orders from the Police Department not being so large as those in 1910–1911, while that under Irrigation was due to the curtailment of the programme of Minor Irrigation Works owing to the presence of water in tanks and to the scarcity of labour.

Provincial Loans.

659. The Provincial advance and loan account (including loans to Local Boards for railway construction) opened with a balance of Rs. 90,18,151 on the 1st April 1911 and closed with a balance of Rs. 90,23,637 on 31st March 1912. The net advances during the year thus amounted to Rs. 5,486. Advances to the extent of Rs. 9,65,581 were made during the year, while repayments amounted to Rs. 9,60,095. The ryots received advances to the extent of Rs. 7,37,891 during the year as against Rs. 6,52,546 in 1910–1911. District Municipalities obtained loans aggregating Rs. 2,27,690. No loans were granted to Local Fund Boards or

Co-operative Credit Societies during the year under report. The chief items of loans to District Municipalities were—

(i) Rs. 42,700 to the Kodaikānal Municipality for water-supply.
(ii) Rs. 75,000 to the Rajahmundry Municipality for town improvement.
(iii) Rs. 10,000 to the Salem Municipality for water-supply.
(iv) Rs. 25,100 to the Tanjore Municipality for the construction of a service reservoir.
(v) Rs. 50,000 to the Bellary Municipality for the opening up of congested areas.
(vi) Rs. 21,000 to the Periyakulam Municipality for water-supply.

The Kistna District Board repaid Rs. 69,772 during the year in part payment of the Railway loan taken by it.

Local Funds.

660. The following paragraphs deal with funds raised from special sources and devoted to special objects and not to the general purposes of the administration (Imperial and Provincial). The funds comprised under the head "Local Funds" are (1) Local Funds constituted under Act V of 1884, (2) the Proprietary Estates Village Service Fund, (3) the Bhadrāchalam Estate Village Service Fund, (4) the Irrigation Cess Fund, (5) Port and Marine Funds, (6) Cantonment Funds, (7) Cantonment Hospital Funds, (8) the University Fee Fund, (9) the Kumbakōnam College Hostel Fund, (10) Mrs. A. V. Narasinga Rao's College Fund, (11) Vizagapatam Hospital Fund and (12) Hyderabad Residency Local Funds.

Local Funds, Act V of 1884.

661. The Local Funds constituted under Act V of 1884 opened with a cash balance of Rs. 47,86,474 on 1st April 1911 and closed with a balance of Rupees 55,69,005 at the end of the year, the transactions of the year having resulted in a surplus of Rs. 7,82,531. Exclusive of debt transactions, the receipts and charges of the year under review amounted to Rs. 1,49,72,716 and Rs. 1,30,58,311 respectively and resulted in a surplus of Rs. 19,14,405 as against Rs. 12,56,174 in the previous year. The improvement of Rs. 6,58,231 was due to larger receipts under Education, Medical, Miscellaneous and Civil Works. The total revenues of the year show an increase of Rs. 15,06,317 as compared with the previous year. The largest increase was under Civil works (Rs. 9,76,671) and was due to larger contributions from Provincial Funds on account of sanitary works, medical buildings and outlay on communications. Larger grants from Provincial Funds towards elementary schools and sanitary improvements account for the increase of Rs. 1,21,624 and Rs. 1,60,919 under "Education" and "Medical" respectively. The receipts under "Miscellaneous" also exceeded those of the previous year by Rs. 1,60,001 owing chiefly to the sale of occupancy rights in chattram lands in Tanjore. On the other hand, there was a decrease of Rs. 92,325 under Provincial rates chiefly in Guntūr. The total charges of the year exceeded those of the previous year by Rs. 8,48,086, nearly the whole of which was under Civil works (Rs. 8,31,412), and was due chiefly to larger outlay on communications and on the schemes for the improvement of water-supply out of the grants made from Provincial Funds for the purpose. The receipts and charges on account of debt transactions during the year under review were Rs. 11,09,350 and Rs. 22,41,226 respectively. The excess in the outgoings over receipts is nominal as Rs. 12,93,022 were invested in Government and other securities. The funded capital of the District Boards on 31st March 1912 was Rs. 82,29,399 inclusive of certain investments amounting to Rs. 1,90,204 made in previous years and kept outside the Local Fund Accounts, but which were included in the accounts in the year under review. Of this Rs. 71,97,100 represents investments of the railway cess balances in the districts of South Arcot, Coimbatore, Guntūr, Kistna, Kurnool, Madura, Rāmnād, Salem, Tanjore, Tinnevelly and Trichinopoly. The balance of Rs. 10,32,299 represents investments on account of endowments and other funds.

Proprietary Estates Village Service Fund.

662. The enfranchisement operations having been completed, cesses were levied in all the districts except Chingleput, the Nilgiris, Salem, Malabar and South Canara during the year under review. The receipts of the fund amounted to Rs. 14,12,495 and exceeded those of the previous year by Rs. 2,90,315, the improvement being due to increased collections of cess chiefly in Kistna (Rs. 3·50 lakhs) and in Ganjām and Gōdāvari. The charges amounted to Rs. 10,16,847 and were more than those of the previous year by Rs. 4,35,370. The increase was due chiefly to the revision of village establishments in certain estates in the Vizagapatam, Kistna, Guntūr, Nellore and Chittoor districts. The transactions of the year resulted in a surplus of Rs. 3,95,648 which raised the balance at credit of the fund on 1st April 1911 to Rs. 16,51,008 at the close of the year.

Bhadrāchalam Estate Village Service Fund.

663. The receipts of this fund consist entirely of the payments made by proprietors and of the deductions made from the land revenue collections (beriz) of Government villages, no cess being levied from the proprietors on account of the endowments of the village servants. The receipts of the fund amounted to Rs. 8,645 against Rs. 8,205 in the previous year and the charges to Rs. 6,661 or Rs. 571 less than those of the previous year. The fund closed with a credit balance of Rs. 8,490 at the end of the year.

Irrigation Cess Fund.

664. This fund exists in the districts of Chingleput, South Arcot, Trichinopoly, Madura and Coimbatore. The fund opened with a balance of Rs. 66,440 and closed with a balance of Rs. 82,894. The receipts and charges amounted to Rs. 49,955 and Rs. 33,501, respectively, the former being less than those of the previous year by Rs. 3,034 and the latter more by Rs. 1,161.

Port and Marine Funds.

665. These funds consist of (*a*) Port Funds (Act XV of 1908), (*b*) Pilotage Funds (outports), (*c*) Landing and Shipping Funds and (*d*) Madras Coast Lights Fund. The Port Funds are again sub-divided into (i) Madras and (ii) Minor Ports Funds. The Madras Port Fund opened with a balance of Rs. 13,940 on 1st April 1911 and closed with a balance of Rs. 9,173 at the end of the year. The income of the fund during the year amounted to Rs. 1,00,931 and the expenditure to Rs. 1,05,698. Government securities of the face value of Rs. 10,300 together with cash for Rs. 25,000 were transferred as a contribution to the Madras Port Trust Board. The Minor Ports Funds opened with a balance of Rs. 1,71,464. Government paper of the face value of Rs. 50,000 was purchased during the year, bringing the total security balance at credit of the funds to Rs. 15,71,300. The receipts and charges of the funds amounted to Rs. 5,06,851 and Rs. 3,97,151 respectively. During the year the loan of Rs. 22,000 taken by the Tuticorin Landing and Shipping Fund was repaid and a fresh loan of Rs. 60,000 was made to the same fund to avoid an anticipated deficit. The funds closed with a balance of Rs. 2,81,165 at the end of the year. The income and expenditure from the Outports Pilotage Fund during the year under review amounted to Rs. 16,616 and Rs. 20,978 respectively and thus resulted in a deficit of Rs. 4,362. Government securities of the face value of Rs. 4,000 were purchased on account of the Pāmban and Kilakarai Pilotage Funds, while securities of the value of Rs. 200 belonging to the Cochin Pilotage Fund were sold during the year. The net result of these transactions was that the total invested balance of all the Pilotage funds was raised from Rs. 1,63,400 on 31st March 1911 to Rs. 1,67,200 on the 31st March 1912. The receipts and charges of the Landing and Shipping Funds amounted to Rs. 3,39,666 and Rs. 3,36,318 respectively. The total invested balance to the credit of the funds at the end of the year was Rs. 4,47,500. The Madras Coast Lights Fund opened with a balance of Rs. 52,036 and closed with one of Rs. 39,858. The invested balance to the credit of the fund at the end of the year was Rs. 34,000.

Cantonment Funds.

666. The receipts and charges of these funds amounted to Rs. 3,45,894 and Rs. 3,73,420 respectively, the result being a deficit of Rs. 27,526. The balance of Rs. 1,60,260 at the beginning of the year was thus reduced to Rs. 1,32,734 at its close.

Cantonment Hospital Funds.

667. The receipts and charges of the Wellington and Secunderabad Cantonment Hospital Funds amounted to Rs. 8,093 and Rs. 8,844 respectively. As the receipts fell short of the expenditure the balance of Rs. 754 at the beginning of the year was reduced to Rs. 3 at its close.

University Fee Fund.

668. The cash transactions of this fund resulted in a deficit of Rs. 23,764 as a result of the purchase of Government paper to the face value of Rs. 50,000. The invested balance of the fund was thus raised from Rs. 6,30,000 at the beginning of the year to Rs. 6,80,000 at its close.

Kumbakōnam College Hostel Fund.

669. The balance to the credit of this fund rose from Rs. 399 to Rs. 1,498, thus resulting in a surplus of Rs. 1,099.

Mrs. A. V. Narasinga Rao's College Fund.

670. The receipts and charges of this fund amounted to Rs. 39,395 and Rs. 40,233 respectively during the year under review. The balance at the credit of the fund was thus reduced from Rs. 10,280 to Rs. 9,442. The invested balance continues to stand at Rs. 1,00,000.

671. This fund opened with a balance of Rs. 600 on 1st April 1911. The receipts and charges during the year amounted to Rs. 13,010 and Rs. 12,589 respectively, thus resulting in a surplus of Rs. 421. The balance at the close of the year was raised to Rs. 1,021. Vizagapatam Hospital Fund.

672. These funds, which were transferred to the books of this Province with effect from the year 1910–1911, opened with a balance of Rs. 73,070 on 1st April 1911. The receipts and charges amounted to Rs. 1,63,014 and Rs. 1,65,957 respectively, the balance being thereby reduced to Rs. 70,127 at the close of the year. Haidarabad Residency Local Funds.

MUNICIPAL REVENUE.

673. The receipts and charges of district municipalities amounted to Rupees 60,87,697 and Rs. 54,50,413, respectively, the balance to their credit consequently rising from Rs. 10,24,137 at the beginning of the year to Rs. 16,61,421 at its close. The receipts of the Madras Corporation were Rs. 34,32,076 and the charges Rs. 36,88,744. The balance to the credit of the Corporation at the end of the year fell in consequence from Rs. 21,03,118 to Rs. 18,46,450.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

DETAILS OF CENSUS.

Previous Censuses.

674. The census of 1911, which was taken on the night of the 10th March in that year, was the fifth enumeration regularly made of the people living in the Madras Presidency. Previous to 1871 estimates of the population had from time to time been framed, the first of these attempts being so remote in point of time as 1821–1822. Between 1851 and 1866 quinquennial returns as to population were compiled by the Board of Revenue, apparently on the basis of figures supplied by village officers.

Systematic Enumeration.

675. On November 14th, 1871, the first systematic numbering of the people was carried out. The dates of subsequent enumerations are given in the margin. The choice of the actual date for the undertaking is influenced by several considerations. As the final enumeration is carried out at night there must be a moon to enable enumerators to find their way about; to avoid temporary and abnormal variations in the distribution of the population, it is well to ascertain beforehand, so far as possible, dates fixed for important religious festivals, which, in India, have the effect of attracting temporarily thousands from their village homes to the festival centre. That this latter effort is not invariably successful the strange decennial fluctuations noticeable in the population of certain towns sufficiently prove. Of such, the case of Tiruvottiyur, a fairly well-known festival centre situated just outside Madras City, will serve as an example.

Actual date of enumeration.

17th February	1881.
26th „	1891.
1st March	1901.
10th „	1911.

Population of Tiruvottiyur.

1881	9,098
1891	7,429
1901	15,919
1911	9,409

Period of Enumeration.

676. In certain parts of the Presidency, enumeration on a single night is not a practicable procedure. Such are the agency tracts of Ganjām, Vizagapatam and Gōdāvari, the Javadi Hills of North Arcot, and the Attapādi Valley of the Malabar district. The census of the Laccadive and Amindivi Islands has to be taken sufficiently early to admit of the returns therefor reaching the mainland in time for incorporation with the general statistics of the Presidency.

677. The Tōdas of the Nilgiri Hills are not as a rule to be found in their munds at the close of the official year; their custom at such season being to scatter with their herds through the pastures on the Kundahs. Accordingly for them a special enumeration has to be arranged at a convenient time; on the present occasion this was carried out on December 15th, 1910.

Procedure in 1911.

678. The organization of the census is based on a recognition of the territorial sub-division of the Presidency for administrative needs into districts, taluks, and firkas. The latter sub-division is usually called for census purposes a *charge*, and is placed under the care of a charge superintendent; a *charge* is divided into *circles*, and each *circle* into *blocks*. A *block*, the smallest unit of the system, varies in size from 25 houses in the country villages to 60 in Madras City.

Enumeration.

679. The *enumerator*, to whom the enumeration of a block is assigned, about 15 days before the census date goes round his allotted tale of houses, and enters in the book supplied to him the requisite particulars concerning each person there found. On the actual night he merely calls over the entries already made, striking out the names of those who have gone elsewhere, and writing in details of new arrivals.

Compilation.

680. On the morning after the final census enumerators meet their charge superintendent or circle supervisor at a place appointed. The totals of men and women and occupied houses are made up as rapidly as may be, and transmitted to the Tahsildar of the taluk; each Tahsildar in his turn passes on his figures to the Collector, who, when all such taluk returns have been received, telegraphs the "provisional totals" of his district to the Census Commissioner for India, and to the Provincial Superintendent of Census, Madras. These provisional totals were published in 1911 within seven days of the actual enumeration; excluding subsequent arrivals by sea, for whose enumeration certain days of grace are allowed, they differed from the figures as finally ascertained by but ·0086 per cent.

681. When the schedule books arrive at the central office the particulars entered against each person are copied on a slip. These slips are sorted into various combinations and from a compilation of the figures so obtained are built up the Imperial Tables.

Cost of the Census.

682. It is not easy to state with absolute precision the expenditure of time and money necessitated by a census. With the actual preparation of the Imperial Tables and Report proper are associated certain miscellaneous works, such as the compilation of statistics by villages of population, sex and religion for every district in the Presidency, of certain information relating to the wards of municipalities, etc., etc. The proof reading of hundreds of pages full of figures and nothing else is necessarily a tedious matter, and the figures of the census undergo a multiplicity of checks by comparison with various departmental returns. As regards expenditure two sets of accounts are maintained; the one departmental, which accounts for everything paid or recovered under the head of census, the other financial, which admits certain abatements, such as the permanent salaries of Government officials temporarily employed on census duty.

683. The first Imperial table prepared was sent to the Press on the 25th of August 1911; the last on the 8th January 1912. By the end of April 1912, all tables had been revised; the report had been written and printed, and clean proofs of the greater part received from the Press.

684 The total expenditure according to departmental accounts up to the end of March 1912 was approximately two lakhs and fifty-two thousand rupees; a total exceeding by about forty thousand rupees that of the "financial" accounts.

Area and Population.

685. The area of the Presidency, which, excluding the feudatory States of Pudukkōttai, Banganapalle and Sandūr is now 142,330 square miles, received since the enumeration of 1901 an addition by the transfer of the Nugūr taluk from the Central Provinces to Madras.

686. But between 1901 and 1911, the internal distribution of administrative areas in the Presidency underwent considerable changes. The 22 districts of the former year resolved into 25; Guntūr, Rāmnād and Chittoor having been newly constituted in the decennium; 23 new taluks were created, while the carrying out of such changes affected the boundaries of some 50 more.

687. To facilitate comparison the figures of 1901 and 1891, have been adjusted retrospectively to these changes. The population, for example, of the Kistna district shown in Imperial table II for 1911, differs widely from that accredited to Kistna in the corresponding table of 1901; the explanation is that the population in 1901 of all villages and towns *now* included in the Kistna district was ascertained, and the figures now standing against Kistna represent the population in 1901 of a tract of country corresponding exactly to the present district bearing that name. A similar explanation applies to similar modifications noticeable in respect of other district figures.

688. Between 1901 and 1911 the population of the Presidency as a whole increased by 3,216,602, or by slightly more than 8 per cent., while, if the political division between British territory and feudatory States be observed, the increase in the latter was greater than that in the former. Of this fact the obvious explanation is that during the comparatively unfavourable agricultural decade 1891–1901 the population in British territory progressed steadily, while two of the feudatory States actually lost in numbers, and the increase in the third was practically negligible. Their greater increase then is but the occurrence of a well-known statistical phenomenon—a rebound after a season of adversity.

689. Increase throughout the decade was most noticeable in the "Agency division" of the Presidency, of which the population increased by 16·7 per cent. For various reasons, however, the accuracy of each and every enumeration in these wild tracts is open to considerable suspicion, and the figures obtained for other natural divisions of the Presidency afford more reliable guidance as to popular progress. The contrasted figures of the last two decades are exhibited in the margin.

Natural Divisions.	Rate of increase per cent.	
	1901–1911.	1891–1901.
East Coast (North) ...	9·8	8·8
Do. (South) ...	8·2	5·4
Do. (Central) ...	8·0	9·1
West Coast ...	7·1	6·3
Deccan	3·8	5·3

690. Among the districts of the Presidency, excluding the agencies, Madras City, Anjengo and the States of Pudukkōttai, Sandur, and Banganapalle, increase was most marked in Kistna (14·5 per cent.) and Guntūr (13·9 per cent.), and lowest in Bellary (2·3 per cent.), Anantapur (3·2 per cent.) and Cuddapah (1·6 per cent.).

691. The largest district in the Madras Presidency is Vizagapatam, but of its 17,221 square miles no less than 12,621 represent agency tracts, whose administrative necessities do not as yet press so heavily on official shoulders as those of the smaller and more accessible districts proper. Madras City with an area of 27 square miles—Anjengo may be disregarded—is the smallest nominal district, followed by the Nilgiri Hills with an extent of slightly over 1,000 square miles. But neither a city nor a mountain plateau, it may be remarked, represents fairly the connotation of the term "district."

Density of Population.

692. In point of density of population, the Presidency has advanced from 220 persons per square mile in 1871 to 291 in 1911. Save for the period 1871–1881, when the great famine of 1877 produced its natural effect, the advance has been continuous, that of the last ten years being from 269 to 291.

693. Of districts, Tanjore, in point of density, stands first, with 634 persons per square mile of total area. The density of the Deccan districts of Cuddapah, Kurnool, Bellary and Anantapur varies from 170 to 123 persons per square mile; at the bottom of the scale is found the Gōdāvari agency with but 56. But if the standard taken be density in proportion to cultivated area, Tanjore will stand but sixth, with 1,135 persons per cultivated square mile; a figure easily surpassed by the 1,549 of Vizagapatam.

694. If density be considered in relation to units smaller than districts, the results of the census show that taluks with such low densities as 100, 100–150, and 150–200 persons per square mile occupy a very considerable proportion of the area of the Presidency, and that a greater density than 500 persons to the square mile is comparatively rare. Exceptions of course are to be found; the density of population in Kumbakōnam taluk of Tanjore exceeds 1,300 persons per square mile; Malabar has three such taluks, in one of which (Ponnāni) the figure rises to over 1,200.

695. Malabar, unless Vizagapatam and its agency tracts be considered as together forming one district, supports the largest population (3,015,119) of any one district in the Presidency; the Nilgiri Hills, scarcely a normal district, have but 118,618 inhabitants.

Cities, Towns and Villages.

696. Possession of 50,000 inhabitants was the criterion of cityship adopted at the census of 1911. *Towns* included all municipalities and cantonments, and "every other continuous collection of houses inhabited by not less than 5,000 persons, which the Provincial Superintendent may decide to treat as a town."

697. On this basis, the Presidency was found to contain 13 cities and 267 towns. In the latter number, it is true, are included a few places which do not fulfil exactly the required conditions: in the former, Bellary and Coimbatore find place, although, as a result of evacuation on account of plague, their respective populations had fallen temporarily below the requisite standard.

698. Madras City, Madura and Trichinopoly, alone in the Presidency boast more than 100,000 inhabitants. But while in ten years the two latter cities have increased by 26·6 and 17·9 per cent. respectively, a striking feature of the decennium has been the practical cessation of growth in the capital city, where the gain is but 1·8 per cent. as compared with 12·6 per cent. between 1891 and 1901, and 11·5 in the preceding decade.

699. Between 1891 and 1901 the urban population of the Presidency increased by 25 per cent., as compared with an increase of but 5 per cent. in the rural population. Between 1901 and 1911, urban increase fell to 15 per cent., while that in the country side rose to 8 per cent. The explanation probably lies in the fact that a succession of favourable seasons in the decade, by rendering the work most congenial to the Indian villager fairly abundant and certain, arrested the townward movement produced by a series of lean years between 1891 and 1901.

700. That the Madrasi is pre-eminently a dweller in villages is abundantly clear from the information obtained by the census enquiry. Of 1,000 people in the Presidency 883 live in villages; and of the village population the greater part (651 per 1,000) is found in villages possessing not more than 2,000 inhabitants. In the East Coast Southern Division, which includes the cities of Madura, Trichinopoly, Kumbakōnam, Negapatam and Tanjore, the proportion of urban dwellers is at its highest; but even there 841 per 1,000 of the population live in villages, and considerably more than half of this number in villages of no great size.

House-room.

701. Occupied houses increased by approximately 10 per cent. during the decade; a rate surpassing that of the general increase in population. In Madras City house accommodation increased by more than 7 per cent. in comparison with a rise of less than 2 per cent. in population. Between 1891 and 1901, the increase in urban population far exceeded that of urban accommodation, while the increases in village population, and in houses available, or at least occupied, in villages, were practically equal. Between 1901 and 1911, urban and village increase in occupied houses surpassed slightly the increase of urban and village population.

Religion.

702. In point of religion, the Madras Presidency is predominantly Hindu, 8,892 per 10,000 of the total population being returned as adherents of this creed. Of those remaining, 660 are Muhammadans, 289 Christians, and 153 Animists. As compared with 1901, Hindus have increased by 8·1 per cent., Muhammadans by 11·1, and Christians by 16·3. Animists who between 1891 and 1901 showed a statistical increase of 35·7 per cent. have actually fallen slightly in numbers during the ensuing decade. That such variations should correctly represent existing circumstances is obviously impossible; and is as obviously due to the difficulty, if not impossibility, of drawing a clear line between popular Hinduism and Animism. Vizagapatam, the district of the Presidency pre-eminently Hindu, with 9,869 Hindus per 10,000 of its total population, contains many, of whose primitive theology animism is certainly a description as accurate as Hinduism, if not more so.

703. In Malabar alone, where the followers of Islam number 3,162 per 10,000 of the district population, does Muhammadanism make a very appreciable showing in comparison with Hinduism.

704. Anjengo and the Nilgiri district, being excluded, Christianity is most strongly represented on the south-east coast, and in Tinnevelly in particular, where well nigh 10 per cent. of the total population profess the Christian faith.

705. Of Christian churches, that of Rome can claim most adherents among Indians, 579 per 1,000 of the Christian population being included in its membership. But as regards rate of increase, several Protestant sects outstrip their older rival, which shows for the decade an increase of but 79 per 1,000, as against the 259 per 1,000 of the Anglicans, 459 per 1,000 of the Congregationalists, and 350 per 1,000 of the Lutherans.

706. Differences of sect in other religions, such as that between Saivite and Vaishnavite in Hinduism, between Sunni and Sheikh in Muhammadanism, were not recorded at the census of 1911.

Sex.

707. In point of sex ratio the Madras Presidency differs from India as a whole, the general proportion of women to men being that of 1,032 : 1,000. In some fourteen of the territorial units, into which the Province is divided for census purposes, men outnumber women; but from these fourteen at least six may be excluded on various special grounds. In the remaining eight units—the districts of Guntūr, Nellore, Cuddapah, Kurnool, Bellary, Anantapur, Chingleput and Chittoor—this discrepancy, in point of sex proportion, with the rest of the Presidency has long been noticeable. Several hypotheses have been advanced from time to time in explanation; their probability or improbability is discussed in the chapter of the census report which deals with the question of sex. Although no entirely satisfactory conclusion can be reached, the balance of probability inclines to explanation

of the deficiency of women in these districts by the practical coincidence of these tracts of country with what may be called the "famine zone" of the Presidency.

Civil Condition.

708. The census returns of civil condition afford proof, if proof be needed, of the universality of marriage in Southern India. On the assumption that a man should not marry before the age of 20 years, a woman before 15, the figures quoted in the margin contrast the number of persons married in the Presidency with that of those who have attained marriageable age in 1911, and supply similar information in respect of each main religion. Comparison of the figures obtained at three successive enumerations appears to suggest that early-marriages decreased in number between 1891 and 1901, but that the subsequent decade showed a deterioration (the correctness of the term will probably be admitted) in this respect. Of this happening the true explanation is probably to be found in the fact that the decade 1891—1901 was, on the whole, extremely unfavourable from an agricultural point of view, and that accordingly the marriage of children, an occasion of expense to their parents, was of necessity eschewed. The returning prosperity of 1901—1911 revived the old custom.

Religion.	Married or widowed per 10,000 of population.		Of marriageable age per 10,000 of population.	
	Male.	Female.	Male.	Female.
All religions ...	4,670	6,272	5,237	6,256
Hindu ...	4,716	6,338	5,268	6,283
Muhammadan ...	4,179	5,877	4,913	6,036
Christian ...	4,394	5,543	5,073	6,066

709. There were in 1911, 1,064 wives per 1,000 husbands in the Presidency; and this preponderance of wives is noticeable among the followers of each main religion. But a too hasty conclusion as to the prevalence of polygamy should be avoided by remembrance of two facts; the first, that the returns of other provinces show enormous temporary migration of male labour from Madras to Burma, Ceylon, the Straits Settlements, etc.; the second, that, marriage being considered the normal state of an adult woman in Southern India, return by a woman of her civil condition as "married" may be frequently open to question as regards strict accuracy.

Education.

710. Ability to write a letter and to read the reply thereto is the usual criterion of education, or at least of literacy, adopted at a census-taking. Judged by this test 3,130,250 persons in the Presidency, or 748 per 10,000 of the total population, are educated. Sex disproportion, as might be expected, is strongly marked in the matter of education, there being 1,381 per 10,000 of the male population literate, as compared with 134 of a similar number of women.

711. Male literates increased by 196 per mille during the decade, female by 42. A satisfactory feature of the census returns was the high proportion of literates found at the earlier age-periods: an indication that an educated generation is growing up.

712. The enquiry made in 1901 as to the vernacular professed by each literate person enumerated was abandoned in 1911, but that as to literacy in English was continued. In 1901, of 10,000 of the total male population 90 were literate in English, the corresponding figure for women being 11. These figures have increased to 121 in the case of men, and 13 in the case of women.

713. If Madras, Anjengo, and the Nilgiri Hills be excluded, the Tinnevelly district in point of education makes the best showing in 1911. In male literacy the district stands first, and it takes second place to Malabar as regards the education of its women. As regards increase in female literacy, its figures are better than those of Malabar; in point of English education it is rapidly closing up the gap which, at the last census, separated it from Tanjore and Chingleput.

714. Statistics of literacy by caste, tribe or race were recorded in 1911, in somewhat greater detail than ten years previously. At the earlier enumeration certain castes were taken as representative, and the proportion of literates to illiterates amid a certain number of such ascertained. In 1911 the caste, tribe or race of every literate person was recorded. The result shows the general literary predominance of the Brahmans, at least so far as their men are concerned. In regard to the education of women Malayalam Brahmans excel the rest of their community; they are excelled in this respect only by the Dasi caste; although Tamil Brahmans, the West Coast Nayars, and the Bogam caste run them fairly close.

715. Facilities for education are naturally greater in large cities than on the country side. Kumbakōnam has nearly 50 per cent. of its male population literate, but in point of female education its rank is very low. In this latter direction Madras and Calicut, with 129 and 112 women literate per 1,000 of their respective female populations, are markedly prominent.

716. Four kinds of infirmities were recorded at the census; namely, insanity, deaf-mutism (from birth), blindness, and corrosive leprosy. There is reason to believe that the census returns in this respect are particularly inaccurate, inasmuch as there is a natural reluctance on the part of persons enumerated to describe themselves or their relations as insane or leprous, while diagnosis of deaf-mutism in early life is a difficult matter even for a properly qualified medical man. Total blindness is easily recognisable, but may arise from so many widely different causes that mere knowledge of the number of persons totally blind is of no great value. Figures quoted in the margin show the proportion of the afflicted of each sex to 100,000 persons of the same sex in the total population at the last three enumerations. It will be noted that, save in the case of blindness in 1891, men appear as much greater sufferers than women; a possible explanation being that the absolute and universal necessity of female marriage in India renders concealment of female infirmities inevitable.

Infirmities.

Year.	Insane.		Deaf-mute.		Blind.		Leper.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1891	25	18	87	65	101	104	53	18
1901	23	15	74	55	91	88	54	17
1911	24	17	87	68	83	79	62	20

717. In chapter X of the census report are quoted the opinions of experts, who have examined the figures returned, as to the prevalent causes of these infirmities in Southern India. The general consensus of opinion ascribes to consanguineous marriage a large share of the responsibility for much of the insanity, deaf-mutism and blindness observed; a continued existence of leprosy is attributed to a complete absence of segregation of the afflicted, which results in the employment of lepers in such businesses as milk and provision selling, and cigarette rolling; in the unrestricted circulation of coins and currency notes handled by lepers; in a practically unrestricted use of public communications by lepers.

718. Occupations returned at the census of 1911 were classified in accordance with a scheme devised by the well-known French statistician, M. Bertillon. The ultimate number detailed has been reduced from 520 to 169; by grouping of these details under certain general headings applicable to every country the international comparison of statistics is to some extent facilitated.

Occupation.

719. But whatever system of classification be adopted, the result in the Madras Presidency can always be foreseen with tolerable exactitude. The Presidency is pre-eminently agricultural, and agriculture supports, whether as workers or dependents, well nigh 7,000 of each 10,000 of the total population. If the distribution of actual workers in agriculture be considered, it will be found that of 1,000 working agriculturists 426 are cultivating landowners, or "peasant proprietors", 207 are cultivating tenants, and 340 farm labourers.

720. On the side of industries, wherein 1,335 per 10,000 of the population find employment, the cotton trade in its various branches employs more capital, and gives employment to a larger number of people, than any other industry carried on in the Presidency. The number of persons engaged in cotton ginning, cleaning and pressing has increased very considerably in ten years, and the number of hands employed in spinning mills rose from 12,600 in 1901 to 18,860 in 1909–1910. But from a popular point of view of greatest interest is the position of the handloom weaver, whose circumstances are thus described by the writer of the industrial section of chapter XII of the census report: "In the last 40 years the number of handloom weavers has remained practically stationary, but, owing to stress of competition, they now turn out a larger amount of finished goods than was formerly the case; that is to say, the majority of them have to work harder to make a bare living. Their lot would probably be greatly improved, if they could be induced to accept outside assistance, which can only be effectively rendered by the establishment of small handloom weaving factories. The individual

weaver suffers, because he is still trying to carry on a complex series of operations without recognition of the advantages of sub-division of labour."

721. Workers in metal show a very small increase, which is irreconcilable with an enormous increase in the imports of metal. Inasmuch as the substitution of metal vessels for earthenware is a usual Indian sign of prosperity, it may be accepted, that increased consumption of metal testifies to a widely diffused increase of wealth among the people.

722. But in whatever light the census returns be considered, the fact remains that on the side of industrial development, Madras is heavily handicapped by its lack of mineral wealth. Herein the most important deficiency is coal; a few tons have been mined in the Gōdāvari district; elsewhere none has been discovered.

723. For the first time an enquiry was made at the census of 1911, as to the number of persons working on a given date in factories which employed 20 or more persons. Similar enquiry was made as to the number of factories employing mechanical power; in Madras the information so obtained was supplemented by the kindness of power-users, who returned the type and power of engines or motors employed by them. The information so obtained cannot claim to be exhaustive, still a commencement has been made in an undertaking of some moment, namely a decennial census of the various descriptions of mechanical power in use throughout the Presidency.

724. Trade employs 661 persons in 10,000; of these 437 are engaged in trade in foodstuffs. The "liberal arts and professions" have 163 followers per 10,000, but of these 61 are occupied with religion, which in India is a term of wide occupational content.

725. Out of a total female population of 21,264,152 those actively engaged in work appeared to number 8,379,378. Agriculture accounted for about three-fourths of this number, and of women agriculturists well nigh half are but daily labourers. In the case of many other occupations returned by women (such as masonry, carpentry, toddy-drawing), it is obvious that women have returned themselves as actively exercising the trade of those on whom they are dependent, or else have imposed on casual unskilled assistance the name of the trade wherein such assistance is rendered.

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APPENDIX.

APPEN

Natural divisions, districts and States.	Area in square miles.	Population.	Density of population per square mile.	Population living in		Percentage variation in population during 1901–1911.	Number in 10,000 born in India.			Number who	
				Towns.	Villages.		In natural division, district or State where enumerated.	In contiguous districts or States.	In non-contiguous territory.	Hindus.	Muhammadans.
1	2	3	4	5	6	7	8	9	10	11	12
Agency.											
1. Ganjām ...	3,484	350,466	101	...	350,466	+ 9·1	9,917	23	23	3,638	2
2. Vizagapatam.	12,621	1,020,151	81	...	1,020,151	+ 25·0				7,489	20
3. Gōdāvari ...	3,676	206,902	56	...	206,902	+ 14·9				8,818	125
East Coast (North).											
4. Ganjām ...	4,896	1,870,826	382	106,955	1,763,871	+ 10·7	9,893	85	22	9,675	29
5. Vizagapatam.	4,600	2,169,670	472	222,960	1,946,710	+ 4·2	9,927	55	17	9,869	100
6. Gōdāvari ...	2,545	1,445,957	568	190,538	1,255,419	+ 12·4	9,255	593	151	9,771	169
7. Kistna ...	5,907	1,997,535	338	229,570	1,767,965	+ 14·5	9,188	355	457	9,389	354
8. Guntūr ...	5,735	1,697,551	296	162,049	1,535,502	+ 13·9	9,555	393	52	8,526	691
9. Nellore. ...	7,973	1,328,152	167	93,739	1,234,413	+ 4·2	9,759	165	76	8,555	616
Deccan.											
10. Cuddapah ...	5,892	893,998	152	99,838	794,160	+ 1·6	9,758	186	56	8,602	1,109
11. Kurnool ...	7,580	935,199	123	48,614	886,585	+ 7·2	9,503	452	45	8,236	1,291
12. Banganapalle	255	39,344	154	...	39,344	+ 21·9	7,760	1,953	287	7,752	2,047
13. Bellary ...	5,714	969,436	170	143,909	825,527	+ 2·3	9,452	443	97	8,972	966
14. Sandūr ...	161	13,526	84	..	13,526	+ 20·8	7,459	1,944	593	8,047	1,893
15. Anantapur ...	6,718	963,223	143	114,290	848,933	+ 3·2	9,414	510	75	9,099	831
East Coast (Central).											
16. Madras ...	27	518,660	19,210	518,660	...	+ 1·8	6,658	1,341	1,943	8,019	1,141
17. Chingleput ...	3,072	1,406,008	457	207,968	1,198,040	+ 7·3	9,394	364	238	9,547	225
18. Chittoor ...	5,676	1,238,742	218	66,963	1,171,779	+ 5·6	9,463	456	81	9,416	478
19. North Arcot.	4,920	1,960,960	399	240,843	1,720,117	+ 12·0	9,296	581	120	9,186	601
20. Salem ...	6,300	1,766,680	280	118,457	1,648,223	+ 4·0	9,800	167	32	9,669	246
21. Coimbatore ..	7,196	2,116,564	294	179,893	1,936,671	+ 6·9	9,779	192	28	9,694	204
22. South Arcot.	4,208	2,362,566	561	192,376	2,170,190	+ 12·2	9,619	333	46	9,410	284
East Coast (South).											
23. Tanjore ...	3,727	2,362,689	634	373,246	1,989,443	+ 5·2	9,628	224	141	9,062	555
24. Trichinopoly.	4,835	2,107,029	427	224,333	1,882,696	+ 7·2	9,431	495	69	9,273	312
25. Pudukkōttai.	1,178	411,886	350	26,850	385,036	+ 8·3	9,119	814	48	9,276	326
26. Madura ...	4,916	1,932,832	393	262,241	1,670,591	+ 12·8	9,629	226	142	9,291	396
27. Rāmnād ...	4,834	1,658,453	343	300,211	1,358,242	+ 9·2	9,646	298	54	8 813	725
28. Tinnevelly ...	4,353	1,790,619	411	442,793	1,347,826	+ 8·0	9,868	63	66	8,429	589
West Coast.											
29. Nilgiris ...	1,009	118,618	118	34,780	83,838	+ 5·1	6,704	2,273	881	7,917	496
30. Malabar ...	5,794	3,015,119	520	234,516	2,780,603	+ 7·8	9,893	77	25	6,660	3,162
31. Anjengo ...	1	5,572	5,572	.....	5,572	+ 15·7	8,272	1,529	171	2,855	397
32. South Canara	4,021	1,195,227	297	82,884	1,112,343	+ 5·3	9,899	79	21	7,944	1,177
Total ...	143,924	41,870,160	291	4,919,476	36,950,684	+ 8·3	9,939	50	7	8,892	660

DIX.

Civil condition in 10,000 are		Number of the Christian population.	Civil condition of						Number in 10,000 who are literate.			Per 1,000 of district population, proportion of		
			Males.			Females.								
Christians.	Others.		Unmarried.	Married.	Widowed.	Unmarried.	Married.	Widowed.	Total.	Males.	Females.	Agricultural population.	Industrial population.	Professional population.
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
54	6,306	1,896	97,442	71,851	6,490	81,694	72,756	20,235	94	183	5	813·9	65·9	2·2
96	2,395	9,753	260,130	232,766	18,325	211,525	235,706	61,699	112	212	12	814·3	44·5	3·6
78	979	1,616	56,851	43,173	4,472	43,312	42,895	16,199	217	379	50	815·8	72·2	6·2
13	283	2,367	407,953	435,155	25,820	306,112	513,757	182,029	546	1,116	52	687·3	105·8	22·4
23	8	4,983	483,703	531,868	35,038	312,952	578,834	227,275	346	646	62	724·4	126·1	66·6
57	3	8,240	364,901	319,419	23,382	241,405	340,851	155,999	592	1,049	153	664·9	152·5	11·5
250	7	49,863	517,102	445,218	32,641	345,069	457,653	199,852	643	1,128	162	721·0	135·4	12·7
729	54	123,707	441,880	386,686	28,099	287,285	395,418	158.183	601	1,091	102	696·0	161·8	11·7
334	495	44,298	370,304	268.490	25,511	231,047	283,549	148,251	508	920	94	659·7	161·4	10·4
251	38	22,408	249,485	178,620	25,956	145,640	182,259	112,038	543	1,008	64	715·5	150·3	7·6
450	23	42,068	243,308	202,552	25,566	158 646	204,556	100.571	517	965	61	731·3	112·9	7·6
200	1	785	10,145	8,444	1,187	6,559	8,600	4,409	470	877	58	628·3	164·6	11·2
46	16	4,481	257,049	206,135	27,659	176,107	215,681	86 805	533	1,002	52	742·9	124·3	9·2
53	7	71	3,656	2,682	373	2,607	2,776	1,432	526	986	72	633·1	201·1	18·2
38	32	3,636	271,228	193,924	29,080	171,245	200,093	97,653	474	873	53	689·1	154·1	9·8
806	34	41,814	135,285	120,117	11,063	89,721	114,240	48,234	2,791	4,213	1,289	46·0	270·6	68·4
216	12	30,377	391,557	290,951	23,133	278,398	305,409	116,560	884	1,615	148	689·3	127·5	16·4
37	69	4,558	348,249	250,446	30,684	222,024	261,139	126,200	536	993	63	756·5	117·8	11·1
168	45	32,822	523,431	415,550	31,092	383,209	442,440	165,238	708	1,351	78	737·9	115·3	11·7
85	...	15,003	475,494	367,914	33,542	364,100	379.357	146,273	428	815	46	733·2	134·7	10·2
92	10	19,550	566,725	437,722	39,982	444,760	455,431	171,944	624	1,175	86	638·6	175·6	17·0
285	21	67,436	632,116	502,236	38,455	458,335	531,492	199,932	838	1,607	80	811·6	82·1	12·0
380	3	89,814	594,900	478,951	49,233	459,382	531,137	249,086	1,119	2,186	153	633·1	119·5	32·2
415	...	87,353	544,667	443,247	34,952	409,536	471,528	203,099	788	1,498	118	654·5	119·8	19·0
398	...	16,393	107,558	81,192	7,816	84,967	90,905	39,448	829	1,668	62	728·4	73·5	18·5
313	...	60,510	509,092	403,592	33,622	394,353	427,211	164,962	874	1,692	89	751·1	121·3	12·7
462	...	76,677	416,681	334,334	35,172	338,922	379,232	154,112	1,032	2,085	83	658·9	118·8	16·8
982	...	175,889	473,730	357,514	34,389	374,949	390,087	159,950	1,241	2,290	260	576·5	216·8	20·5
1,462	125	17,343	34,167	27,606	1,736	24,339	24,090	6,680	1,393	2,049	636	550·9	88·2	21·9
176	2	53,015	859,548	564,451	58,617	640,646	592,590	299,267	1,110	1,899	347	606·9	179·5	30·4
6,748	...	3,760	1,703	890	97	1,525	983	374	2,376	2,981	1,811	116·8	229·2	59·2
803	76	96,029	333,481	223,428	21,179	236,347	256,086	124,706	789	1,447	172	708·2	103·5	21·0
289	54	1,208,515	10,983,521	8,827,124	795,363	7,926,716	9,388,741	3,948,695	748	1,381	134	687·0	133·9	16·2

BIRTHS AND DEATHS. (1911.)

[*The forty-eighth annual report of the Sanitary Commissioner, Madras, 1911; Report on the working of the Births, Deaths and Marriages Registration Act, VI of 1886, in the Madras Presidency during 1911–1912; Statistics of British India, Part V, Area, Population and Public Health; G.Os. Nos. 1253 L., dated 4th September 1912, and 1358, Public, dated 6th November 1911.*]

Rainfall and Prices.

726. The total average rainfall of the year was 39·00 inches being less than that of the preceding year by 9·45 inches and of the average of 40 years ending 1909 by 4·78 inches. Except in Malabar the south-west monsoon was unfavourable throughout the Presidency; the shortage in some districts was, however, made up by heavier rainfall during the north-east monsoon. The prices of the staple food-grains were still appreciably above the rates classified as normal, rice selling at 9·3 imperial seers of 80 tolas per rupee, ragi at 15·7, cholam at 14·6 and cumbu at 15·1 against an average for the 15 years ending 1910 of 10·2, 17·8, 17·4 and 16·8 respectively. In two districts (Anantapur and Cuddapah) rice was sold at a rate below the average.

Registration.

Births.

727. Compulsory registration of births and deaths was in force in 3,558 towns and villages as in the preceding year. In the Presidency as a whole, excluding the hill tracts of Vizagapatam, the Laccadive Islands and the Pudukkōttai and Banganapalle States from which returns are not received, the population for which statistics were furnished being 40,347,357, the registered birth-rate was 30·4 per mille of the population according to the census of 1911 or 0·2 per mille less than in the preceding year. The birth-rates in individual districts ranged from 37·3 per mille in Malabar to 21·0 per mille in Cuddapah. In rural areas where registration is compulsory the recorded birth-rate was 29·6 or only 0·4 per mille higher than in tracts of country where registration is not obligatory, and steps have been taken to improve the registering agency. In municipal areas the total birth-rate was

Deaths.

35·4 per mille as against 34·9 in 1910. The recorded death-rate for the Presidency rose from 22·5 to 23·1 per mille, cholera and plague being responsible for the increase. Bellary with 36·0 per mille and Ganjām with the obviously inaccurate rate of 14·2 represent the extremes of the figures recorded in the individual districts. The registered death-rate in compulsory areas (22·6 per mille) was only 0·4 per mille in excess of the figure recorded in tracts to which Madras Act III of 1899 has not been extended. The aggregate death-rate in municipal areas advanced from 32·7 to 34·4 per mille, ranging in individual towns from 20·9 in Nandyal to 68·5 in Coimbatore where plague, cholera and small-pox accounted for the increased

Infantile mortality.

mortality. The recorded mortality among infants in rural and municipal areas was 183·4 and 244·6 respectively per mille of births registered, rates which compare favourably with the corresponding figures for 1910, namely, 190·4 and 248·8. The heaviest death-rate was registered in Coimbatore (385·9) and in three other mufassal municipalities the figure exceeded 300 per mille.

Chief Diseases.

Fever.

728. Fever was as usual the chief classified cause of death, the mortality registered under this head being 7·7 per mille of the population in rural tracts and 5·1 in municipal towns, figures which in both cases represent a decrease of 0·6 per mille as compared with 1910. The death-rate was particularly high in the districts of Cuddapah (18·3), Vizagapatam (18·2), Kurnool (12·4), South Canara (10·7) and Ganjām (10·5), and in the municipal towns of Nellore (11·8), Tirupati (11·7), Kurnool (11·6) and Anakāpalle (10·5). During the year a special Malaria Board was constituted to deal with the investigation and prevention of malaria. The regis-

Cholera.

tered mortality from cholera in rural areas was 1·4 as against 0·8 per mille in 1910. It visited all districts and was present throughout the year in fourteen. The mortality caused was again heaviest in Tanjore, though the death-rate reported in that district fell from 5·2 to 4·0 per mille; ratios exceeding 3 per mille were also recorded in Rāmnād and Madura. In municipalities the death-rate was 2·1 per mille, or nearly double the ratio of the preceding year. In the twelve municipalities where an improved system of water-supply has been introduced for more than five years the average mortality from this cause was 5·8 per cent. of the total mortality during the quinquennium ending with 1911 as against 9·8 per cent. for the five years

Small-pox

immediately preceding the date of the introduction. Small-pox as usual affected all the districts of the Presidency, the aggregate mortality in rural areas being 0·6

per mille as against 0·5 in 1910. The district of Madura suffered most severely with a death-rate of 1·3 per mille, followed closely by Coimbatore (1·2), Rāmnād (1·1) and Tanjore (1·0). In municipalities the mortality rose from 0·9 to 1·4 per mille and nearly two-thirds of the deaths registered occurred among children under ten years. The number of deaths from plague rose from 4,867 to 15,185 or 0·4 per mille. The disease was present throughout the year in Bellary, Coimbatore, North Arcot and Salem and the mortality increased in the first of these districts. Among municipal towns Tirupattur, Coimbatore and Bellary suffered the most severely. Under dysentery and diarrhœa the returns indicate a mortality of 1·6 and 5·5 per mille in rural and urban areas as against 1·4 and 5·0 respectively in 1910. In rural areas the Nilgiris and South Canara recorded the highest death-rates, while among municipal towns the ratio was highest in Palamcottah (13·0 per mille) and Periyakulam (12·8 per mille). The aggregate number of deaths registered under respiratory diseases was 36,711 and the death-rate was highest in Madras (6·0 per mille), Anantapur (2·5 per mille) and the Nilgiris (2·4 per mille). The casualties under the head of 'injuries' fell from 11,059 to 10,518.

Plague.

Dysentery and diarrhœa.

Respiratory diseases.

729. The statistics given above do not include Europeans and Eurasians. The number of Registrars of Births and Deaths in the Madras Presidency, excluding the Native States, was 1,039. The number of births registered rose from 129 to 144, the number of deaths remaining the same, namely 44. There were 1,637 baptisms and 1,116 burials against 1,620 and 1,124 respectively in 1910–1911. The chief causes of deaths were fever, diarrhœa and dysentery, heart disease, cholera, pneumonia and consumption in the order named. Of the deaths reported 346 were those of children below 6 years of age as against 390 in the preceding year.

Europeans and Eurasians.

EMIGRATION AND IMMIGRATION.

[*G.O. No. 636, Public, dated 28th May 1912 ; Statistics of British India, Part V, Area, Population and Public Health—Emigration.*]

730. The number of emigrants rose from 5,979 to 6,256. Emigration to Natal ceased to be lawful from the 1st July 1911. Before that date seven ships with 2,970 emigrants left for Natal, as compared with eight shipments of 3,916 emigrants for the whole of last year. Emigration operations for Trinidad continued up to 8th February 1911 ; they were resumed on the 20th September and continued up to 6th December 1911. During that period there were one full and two joint shipments of 1,315 emigrants, as against 474 emigrants last year. Recruitment for Fiji began on the 20th February and continued up to the 8th September 1911, and during this period one full and three joint shipments of 1,971 emigrants were made. Recruitment for the same colony was resumed on the 14th December and 120 coolies were recruited before the close of the year. The due proportion of women was maintained in the case of emigrants to Natal. As regards Trinidad and Fiji the short shipment of women was permitted on the understanding that the deficiency would be made good at the next shipment. There was no emigration to Mauritius or the Seychelles during the year. Of the Natal emigrants only two were detained in the depot for more than three months, on account of hernia and itch. Of the Trinidad emigrants 113 were detained for more than three months on account of slack recruitment and delay in the arrival of the steamer chartered to convey them. Of the Fiji emigrants, six were detained for more than three months pending recovery of a sick family under treatment in the depot hospital. It is reported that the management of the depots during the year was good and that the emigrants were well treated and as a rule contented. During the year 1,627 emigrants returned from Natal in five shipments with savings amounting to Rs. 2,24,400 ; 208 emigrants returned from Mauritius in one shipment with Rs. 2,870 ; and 101 from Fiji in one shipment with Rs. 7,455. There was no emigration to the French colonies. Thirty-seven emigrants returned from La Reunion with savings amounting to Rs. 520.

Regulated Emigration.

731. The number of passengers embarking for the Straits Settlements rose again from 85,015 to 109,189, Negapatam and Nagore sending 78,898 and Madras 28,272 of the total. The continued increase in the number is ascribed to the

Non-Regulated Emigration.

higher rates of wages prevailing in the Straits Settlements and chiefly in the rubber plantations of the Federated Malay States. Of those proceeding to Burma and Ceylon it is impossible to distinguish genuine emigrants from ordinary passengers. The number proceeding to Burma was 144,503 as against 133,495 last year, the increase (which is among the passengers from Ganjām and Madras) being due to the demand for coolies on account of favourable crops in Burma. The number of passengers to Ceylon fell from 177,181 to 135,539, the decrease being chiefly among the passengers from the districts of Tanjore, Rāmnād and Tinnevelly, and the fall in the numbers is attributed to the restrictions placed by the Ceylon Government on the shipping of passengers coming from places affected by plague or cholera.

Immigrants. 732. The number of passengers arriving at various ports from Burma, Ceylon, the Straits Settlements and other ports, was 109,328, 115,703, 51,268 and 17,052 respectively, the fluctuations being normal.

Finance. 733. The charges on account of emigration, exclusive of a moiety of the salaries of the British Consular Agent for Pondicherry and Karikal and his establishment, amounted to Rs. 15,844 as against Rs. 16,251 in the previous year. The receipts from fees paid on emigrants amounted to Rs. 17,445 against Rs. 15,213 realised last year, the increase in receipts following that in the number of emigrants.

MEDICAL RELIEF. (1911.)

[*Annual Returns of the Civil Hospitals and Dispensaries in the Madras Presidency for the year 1911; Statistics of British India, Part V, Area, Population and Public Health—Hospitals.*]

Institutions. 734. The number of institutions open at the end of the year rose from 637 to 655, of which 305 were hospitals and 350 were dispensaries. Sixty-five hospitals and dispensaries were maintained from provincial funds and 472 from local funds; while there were 28 private aided institutions and 43 private non-aided institutions. Railway companies maintained 47 dispensaries. Six local fund, 4 private aided, 10 private non-aided, and 3 railway dispensaries were opened during the year, and 1 local fund, 1 private aided and 3 private non-aided institutions were closed. One of the 4 private aided institutions opened was the Tuberculosis Sanitorium at Madanapalle, Chittoor district; the other three were transferred from Class V (private non-aided) to Class IV (private aided). The Thalli dispensary in Salem district and the Mission Hospital at Megnanapuram, Tinnevelly district, were temporarily closed; the former as the medical subordinate was deputed on festival duty elsewhere and the latter owing to the death of the medical officer whom the Mission have not yet been able to replace. The number of beds available rose from 2,934 to 3,216 for men, and from 2,383 to 2,506 for women, the increase being due to the opening of the Lady Lawley wards in the Government Ophthalmic Hospital and to the provision of new accommodation in the Vizagapatam and South Canara districts.

Relief. 735. The total number of patients treated, both in-door and out-door, was 5,959,054 as against 6,085,368 in 1910. The decrease of 20·76 per mille is chiefly due to a large decrease in eye complaints. Of the total number of patients treated 4·57 per cent. were treated in the female institutions as compared with 4·74 per cent. in the preceding year. In-door patients numbered 80,829 as against 77,633 in 1910 and the daily average attendance was 3,725. The ratio of deaths per cent. for the two years was 5·46 and 5·47 respectively. There was a decrease of 129,510 in the total number of out-patients treated. The decrease was general and not confined to any one class of institution. The average daily attendance fell in consequence from 36,721 to 36,136. The 43 private non-aided institutions open at the end of the year treated 8,277 in-patients and 269,581 out-patients.

Private non-aided institutions.

Diseases. 736. The number of in-patients admitted suffering from malaria remained about the same as in last year, but there was an increase of 16,867 over last year's figures in respect of the number of out-patients treated. Small-pox caused 965 admissions: the mortality among those protected by vaccination, re-vaccination or a previous attack was 7·52 per cent. against a mortality of 35·84 per cent. among the unprotected. Three hundred and one patients were treated for Kala Azar, of whom

218 were treated in the hospitals of the Presidency town. The number of cholera cases treated rose from 3,470 to 7,872, the disease prevailing in an epidemic form throughout the Presidency. If the figures are taken as a whole, of every 10,000 patients (in-door and out-door) treated 2,083 suffered from ulcers and skin diseases, 1,727 from disorders of the digestive system, 812 from malarial affections, 742 from diseases of the eye, and 590 from injuries. The number of labour cases treated was 29,462, of which number 1,462 were abnormal cases. The number of operations rose from 215,994 to 225,335 on 223,111 patients, a cure being effected in 215,495 cases and relief given in 6,262 cases. Negative results are reported in 1,006 cases in which 453 patients died.

737. The total expenditure rose from Rs. 23,70,637 to Rs. 25,39,374, the increase under "buildings and repairs" alone being Rs. 1,54,725. The total receipts from all sources during the year amounted to Rs. 25,66,120. The contributions from Government, Local Boards and Municipalities were Rs. 9,89,798, Rs. 9,83,475 and Rs. 4,28,012 respectively. Voluntary subscriptions amounted to Rs. 58,639. **Finance.**

LUNATIC ASYLUMS. (1911.)

[*G.O. No. 650, Public, dated 31st May 1912; Statistics of British India, Part V, Area, Population and Public Health—Lunatic Asylums.*]

738. The capacity of the three asylums at Madras, Calicut and Vizagapatam increased so as to afford accommodation for 977 inmates against 956 last year. The daily average strength rose from 714 to 750, of whom 556 were males and 194 females. There were 250 admissions during the year, 55 coming from Madras and 63 from Malabar. No other district sent more than 16. The total number of inmates at the end of the year was 757 as compared with 724 at the end of 1910. There were 168 criminal lunatics in confinement at the end of the year; and there were 53 admissions and 4 re-admissions during the year under this head. Comparing the figures for the triennium 1909–1911 with those of the preceding triennium it is found that the daily average strength of the asylums has increased from 625 to 713. The daily average number of criminal lunatics for the triennium was 161 or 28 more than in the previous period. Of the 709 admissions during the three years 179 were from Madras and 160 from Malabar. The largest number of admissions (64·32 per cent.) was between the ages of 20 and 40; the next largest number being in the age-period between 40 and 60 (27·64 per cent.). The total number treated during the triennium for mania, the most common type of insanity, was 837, the next being dementia with 286, and melancholia with 116, giving 61·41, 20·98, and 8·51 respectively per cent. of the total number treated. The percentages for the previous period were 63·52, 18·86 and 9·43 respectively. The results of treatment under the three main forms mentioned above were: recovered, 30·59, 2·45, and 18·10 per cent. respectively; improved, 44·2, 4·89 and 9·48 per cent. respectively and died, 11·83, 22·03, and 14·66 per cent. respectively. Under mania a large increase is shown under recoveries and a decrease in the number of deaths as compared with the previous period. In 42·77 per cent. of the total number of cases treated the cause of insanity was entered as unknown; of the remainder 16·15 per cent. of the cases were ascribed to 'moral causes'; of other cases not due to physical causes, heredity, ganja-smoking and epilepsy accounted in order of frequency for the largest number. Of the total number under treatment in the asylums, the number discharged, cured or improved, amounted to 21·50 per cent. and 4·77 per cent. respectively, against 18·1 per cent. and 3·8 per cent. of the previous triennium. The death-rate showed a diminution from 19·2 per cent. to 14·38 per cent. The average daily number of sick during the triennium was 62·02 giving an increase of 9 over the number in the previous period. The increase is attributed to the bad health of many newly admitted patients and to the fact that hospital treatment was accorded to acute cases of insanity which required careful nursing and dieting.

Population. **Triennial figures.** **Results of treatment.** **Health.**

739. The most important constructions during 1911 were a Recreation Hall and a new hospital for females at the Madras Asylum. **Buildings.**

Finance.

740. The gross expenditure on behalf of the asylums was Rs. 2,37,918, the total cost after allowing for receipts being Rs. 1,41,697 as against Rs. 1,53,841 in 1910. A marked increase occurred under the heads of dieting, clothing and bedding, and miscellaneous items, due to the steady increase in the asylum population. A sum of Rs. 17,355 as compared with Rs. 17,363 in 1910 was received from paying patients. The average expenditure per head per annum, including 'book charges' rose from Rs. 196 to Rs. 217 in 1911. The average expenditure per head during the triennium was Rs. 189 as compared with Rs. 176 in the preceding period.

SANITATION.

[*The sixteenth annual report of the Sanitary Board, the forty-eighth annual report of the Sanitary Commissioner, and the twenty-second annual report of the Sanitary Engineer, Madras, for 1911; G.O. No. 1253 L., dated 4th September 1912.*]

Sanitary Board.

741. The constitution and functions of the Sanitary Board underwent no alteration during the year. Of 70 sanitary schemes involving an aggregate amount of about ten lakhs of rupees, the plans and estimates relating to which received the scrutiny of the Board, 46, which were within its sanctioning powers, were finally approved by that body. Of these 7 were carried to completion during the year, 25 were in progress, 1 was made over to the Public Works Department, and the remaining 13 were postponed by the local bodies concerned for various reasons, lack of budget provision being the operative factor in only 7 cases of the aggregate value of less than Rs. 35,000. The Board also passed type-designs for hospitals and accessory buildings and for model dwelling-houses, bacteriological filters, latrines and other items.

Sanitary Commissioner.

Municipalities.

742. During the year a piped water-supply was opened to public use in the town of Salem, thus increasing the total number of towns with a protected supply to 19. Among the points brought to the notice of municipal authorities by the Sanitary Commissioner were the necessity of introducing the sanctioned revised scale of pay for sanitary inspectors and of strictly defining the duties of these officers, the importance of improving the strength and *personnel* of the public scavenging staff, the provision of an adequate supply of public latrines and the feasibility of preventing or at least mitigating the stagnation of sewage in towns which cannot immediately afford a comprehensive drainage system. The number of public latrines showed an increase in the aggregate, the number of pucca built latrines rising from 790 to 863, while enclosures, which are in every respect unsatisfactory arrangements, fell from 699 to 666. In 22 towns the public latrine accommodation was still below the requirements of the population. The cropping of nightsoil trenching grounds was not practised in any of the municipalities except Bezwada, Bellary, Cannanore and Guntūr, the nightsoil being trenched and sold as manure in most cases. The private scavenging system was in force in all municipalities and 102,519 private latrines were served by municipal agency against 99,462 in the preceding year. The number of houses provided with backyard latrines rose from 121,703 to 126,942, but the proportion of houses provided with latrines to the houses assessed to the tax on buildings was only 38·4 per cent. The expenditure on sanitation during the nine months of the year for which figures are available amounted to Rs. 14,68,751 or 62·3 per cent. of the total assignment. Of this amount Rs. 6,71,448 were devoted to conservancy and Rs. 3,05,477 to improvement of water-supply. Owing to various causes including the defective nature of the proposals submitted by some municipalities the recurring sanitary grants offered by Government were not fully utilised. The number of union and non-union villages employing conservancy staffs fell from 595 to 550.

Local Boards.

At present attempts at sanitation are only made in about 1 per cent. of the 43,994 towns and villages, the great obstacle to progress being the want of funds and consequent inability to employ the necessary staff. The total amount assigned to district boards for sanitation was Rs. 12,23,476, of which 42·6 per cent. was expended

in the nine months of the year for which figures are available. Of this amount Rs. 3,22,968 were spent on conservancy and Rs. 82,596 on improvements to water-supply. During the year a Malaria Board was constituted for the Presidency and held two meetings at which necessary preliminaries were arranged. The Special Malaria Officer was, however, not appointed till after the close of the year. Little organised work was carried out by district boards and municipalities in malaria prevention and only rough measures were possible owing to insufficiency of funds and the lack of skilled supervision. In the Chingleput district a special investigation was commenced at Ennore under Major Ross. The training of Sub-Assistant Surgeons, in the details of malaria preventive work came under special consideration during the year. Apart from the difficulty of prohibiting wet cultivation to an extent large enough to be of practical value there remains the problem of removing the conditions favourable to the breeding of mosquitos presented by the large irrigation tanks scattered throughout the Presidency. The Institute of Preventive Medicine at Guindy, the buildings of which underwent extensive alterations and additions, was engaged largely on the analysis of municipal water-supplies and bacteriological research. The Sanitary Commissioner scrutinised and criticised 225 inspection reports by District Medical and Sanitary Officers, on towns, villages and schools, and 79 reports on fairs and festivals, and examined 132 plans and estimates from local bodies. Eight Assistant Surgeons underwent additional training at the Medical College, and 49 Sanitary Inspectors attended the quinquennial course, of whom 17 were successful in the examination. The number of candidates qualified as Assistant Sanitary Inspectors was 29 and 6 took the higher course and passed the examination in Minor Sanitary Engineering, thus qualifying as Sanitary Inspectors.

Malaria prevention.

General.

Staff.

743. In 1911 detailed plans and estimates were drawn up in the Sanitary Engineer's office for 15 water-supply and drainage schemes. The important drainage project for the town of Madura passed the scrutiny of the Sanitary Board but did not reach the stage of actual execution owing to a prolonged examination of the financial aspect of the scheme in consultation with the Municipal Council. No actual construction work was undertaken by the Sanitary Engineer who was fully occupied with investigation work. Among the chief investigations worked out in detail were drainage proposals for Negapatam, Trichinopoly and Vellore, and measures for the supply of water to the towns of Gudur, Masulipatam, Rāmēswaram and Saidapet, a joint project for the same purpose in Palamcottah, Tinnevelly and Tuticorin, and improvements of the existing arrangements at Conjeeveram, Coonoor, Cuddapah, Kurnool, Madura and Vizianagram. The services of a geological expert were utilised on a series of local investigations as to the feasibility of locating deep-seated sources of water-supply. Besides inspecting existing water-works and advising as to their upkeep the Sanitary Engineer prepared several type-designs chiefly in connection with the methods of water-supply and checked and scrutinised plans and estimates for 368 works. In order to cope with the volume of work on hand two additional temporary Assistant Engineers were sanctioned in September 1911 and the drafting section of the Sanitary Engineer's office was materially strengthened. The water-works at Berhampur, Vizianagram, Salem, Negapatam, Kodaikānal and Periyakulam were under execution by the Public Works Department which was also engaged in carrying out improvements in the existing water-supply systems of Guntūr and Tanjore.

Sanitary Engineer.

Investigation of schemes.

Staff.

744. During the year a Provincial grant of Rs. 6·18 lakhs was distributed to local bodies for expenditure on sanitation in addition to the customary allotment of Rs. 3·50 lakhs from Imperial funds, which was supplemented by a further subsidy from the same source of Rs. 4·25 lakhs, of which, however, only 2 lakhs were actually included in the budget for the year. The principal objects for which these subsidies were given were, as usual, schemes for the opening up of congested urban areas, the acquisition and laying out of town extensions, and the improvement of water-supply and drainage.

Government Grants.

VACCINATION. (1911–1912.)

[*Annual report on the work of the Vaccine Section of the King Institute of Preventive Medicine, Madras; Report on Vaccination in the Madras Presidency for the year 1911–1912; Statistics of British India, Part V, Area, Population and Public Health—Vaccination; G.O. No. 1080 L., dated 30th July 1912.*]

Vaccination.

745. The vaccination staff comprised 82 Deputy Inspectors and 850 Vaccinators and during the year 1,455,485 primary vaccinations and 147,492 revaccinations were performed by all agencies, an increase of nearly 3·7 per cent. on the total number of cases vaccinated in the preceding year. The recorded percentage of success under primary vaccinations rose from 87·6 to 89·7 and under revaccinations from 72·5 to 77·2. There was a decline under revaccinations of 25 per cent. in local fund areas and of 11 per cent. in municipalities. There was an advance of 4·2 per cent. in the number of successful operations on children under one year of age. The average cost of each successful case fell from As. 3–11 to As. 3–9 in consequence of the decrease from As. 3–11 to As. 3–8 in local fund areas. The average cost exceeded As. 5 only in the districts of Gōdāvari and Madura, and in six municipalities the rate was above As. 7. The percentage of cases inspected by Deputy Inspectors in the three grades varied from 76·4 per cent. to 70·5 per cent.; four Deputy Inspectors, however, failed to inspect 50 per cent. The registered mortality from small-pox advanced from 17,553 to 19,198.

Lymph.

746. Lanoline paste from the King Institute, Guindy, was used in all local fund and municipal areas and the percentage of success rose from 87·0 to 89·6 in the former and from 92·0 to 93·2 in the latter area. In 40,182 cases glycerinated lymph supplied from the King Institute was used, 24,204 of the cases being in the Corporation of Madras and the remainder in local fund areas. In the former area the success rate was 97·6 per cent. and in the latter 69·7 per cent.

Trial scheme.

747. Infantile vaccination was by law obligatory in a number of the more important and advanced villages in the Presidency and the "Trial scheme," under which both the registration of births and infantile vaccination are compulsory, continued to be in force in the whole of the Chingleput district and in selected areas in Madura, South Arcot and North Arcot. In Chingleput, the only district in which figures for comparison are available, the average number of vaccinations during the five years ending with 1911–1912 was distinctly in excess of the record for the corresponding period preceding the introduction of the scheme. An administrative change of some importance introduced during the year was the adoption with certain modifications of the proposal of the Royal Commission on Decentralisation to transfer the direct control of the vaccination staff from the district to the taluk boards; the area at present under the trial scheme was, however, excluded from the scope of this order.

CHAPTER VII.

INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION.

General.

748. Public instruction is controlled by the Educational Department of Government. The control which Government exercise over the University of Madras is very slight and consists chiefly in an annual audit of accounts and in the rule whereby all changes in the by-laws of the University have to receive the sanction of the Governor in Council. Colleges may be affiliated to the University on compliance with certain regulations. Certain institutions are maintained and managed by Government directly; they include at present (1912) four colleges for general education and five colleges for special branches of education of which two are not under the Educational Department, 10 secondary schools, 349 elementary schools, 37 training schools and five schools for special education. Other institutions are aided by Government by grants in money for various purposes on prescribed conditions. Government, local boards and municipalities make grants in aid of 324 and 15,946 schools of the secondary and elementary grade respectively and in aid of 64 other institutions under private management. Local boards and municipalities maintain in addition three colleges, 84 secondary schools and 4,502 elementary schools. Over these schools Government exercise considerable control through the annual budgets of the local bodies which, under the Acts applying to them, require the sanction of Government; the grants are made on the recommendation of the officers of the Educational Department. The Government further grant secondary school final certificates to pupils of recognized schools, *i.e.*, schools which are managed in accordance with certain conditions laid down by Government. Candidates for employment in the public service on salaries above a certain limit must ordinarily have passed an examination held by the University or hold secondary school final certificates, the standard of general education required for the several appointments varying with their nature. The Government notify from time to time the text-books which may be used in aided and recognized institutions. Scholarships are awarded annually by Government in recognized schools and colleges, some of them being primarily appropriated to female candidates or to candidates belonging to special classes whose education is backward. In order to maintain a supply of competent teachers, Government maintain 37 training schools and one training college for teachers, grant stipends to a large number of the students therein and hold examinations on the results of which certificates are granted to those who are considered competent to teach; the staff of a recognized or aided school must include a certain proportion of teachers holding such certificates or having some equivalent professional qualifications. There are fourteen training schools for masters and fourteen for mistresses under private (mission) management. Sex does not affect a candidate's eligibility to appear for the public and University examinations and women can obtain degrees on the same terms as men; girls may, as a rule, attend the elementary schools for boys, and there are secondary and elementary schools for girls only; one college for women is affiliated to the University. The education of backward and indigent classes is specially encouraged by the maintenance of schools and the grant of assistance in money to schools for such classes under private management at increased rates and on compliance with easier conditions than those prescribed for ordinary schools. Technical education is promoted by the maintenance and assistance of technical schools, by the maintenance of technical colleges affiliated to the University, by a system of technical examinations, by the inclusion in the secondary school-leaving certificate scheme of technical subjects and by the award of scholarships to be held in technical schools and colleges. In elementary schools the pupils

are usually taught in their own vernacular languages; but English is the medium of instruction and examination in all high schools except a few vernacular high schools for girls and in all colleges affiliated to the University. Physical education is practically compulsory in all recognized schools. A training school for gymnastic instructors is maintained by Government. Teachers are enjoined to attend to the moral training of their pupils and the examinations for the higher grade teachers' certificates include questions on the cultivation of good habits and the formation of character. Religious instruction is not included in any of the prescribed courses of instruction; but while Government with the exception of the Madrasa-i-Azam does not provide religious instruction in its own institutions, there is nothing to prevent teachers in recognized schools from imparting religious instruction at any time, provided that secular instruction is given for the prescribed number of hours. Some account of the present state of education in the Presidency and in the several districts will be found in paragraphs 710 to 715 of Chapter VI (Details of Census) and in the statistical table appended to it.

The Educational Department.

749. The head of the Educational Department under Government is the Director of Public Instruction. The department is broadly divided into (*a*) the Superior service and (*b*) the Subordinate service. The former consists of two branches called the Indian Educational service and the Provincial Educational service. Thirty posts to be filled by persons appointed in England or appointed in India with the approval of the Secretary of State are included in the Indian Educational service, and forty-one posts to be filled by recruitment in India are included in the Provincial Educational service. There are also certain special posts not included in the Indian Educational service, but recruited from England and others not included in the Provincial Educational service to which appointments are made by Government. The salaries of officers in the Provincial service vary from Rs. 200 to Rs. 700, while appointments in the Indian service generally carry a salary of Rs. 500 rising by annual increments of Rs. 50 to Rs. 1,000; personal allowances varying from Rs. 100 to Rs. 500 are also granted in certain cases.

The Supervising Agency.

750. For the purpose of the education of boys the Presidency is divided into eight circles, for that of girls into three circles, each of which is under an inspector or inspectress of schools. There is also an Inspector of European and Training Schools in the Indian Educational service who has an assistant in the Provincial service. Six inspectors and the three inspectresses are members of the Indian service and the other two inspectors are members of the Provincial service. There is also a Superintendent of Industrial Education who inspects all industrial schools throughout the Presidency. There are further assistant inspectors of schools each of whom has charge of a district. Under them are 102 sub-assistant inspectors; there are also seven sub-assistant inspectors of Muhammadan and Mappilla schools, one sub-assistant inspector of Sanskrit schools, one for Coorg and one for Bangalore, and three assistants and seven sub-assistants to the inspectresses of girls' schools. For the organization and periodical inspection of elementary schools 238 supervisors of schools work under the control of sub-assistant inspectors. The distribution of work among the various inspecting officers and their several duties are laid down in the Madras Inspection Code.

The Text-book Committee.

751. The Text-book Committee has been appointed to take into consideration such books as may be referred to it by the Director of Public Instruction and to advise him in regard to their suitability as text-books for the several classes and forms in recognized schools, to advise the Educational department as to the steps to be taken for the preparation and publication of new text-books when necessary and to help in forming under the control of the Director of Public Instruction (i) an educational library containing copies of all text-books approved from time to time by the department, copies of text-books approved or prescribed in other provinces of India and in other countries and copies of works on the theory, practice and history of education and (ii) an educational museum containing plans and models of school buildings and specimens of maps, diagram, apparatus and appliances suitable for schools. The Committee consists of 30 members, who are appointed by Government, in addition to the Director of Public Instruction, who is *ex-officio* President. The Committee has power to appoint sub-committees to deal with different subjects and languages. The Committee submits annually to the Director a list of books considered, with its recommendations. The Director publishes lists of text-books (i) approved for use in institutions under

public management and (ii) approved for use in recognized institutions under private management; the latter list is longer than the former in order to enable private managers to exercise a greater freedom of choice than that enjoyed by managers of schools maintained by Government, by local boards or by municipalities.

The Classification of Institutions.

Public and private institutions.

752. Educational institutions are classified independently in three ways. *Firstly*, they are classified as private institutions and public institutions. All indigenous schools which have not accepted the departmental standards of instruction and all others in which the course of instruction, however advanced, does not conform to the standards prescribed or accepted by the University or by the department are private institutions, *e.g.*, institutions in which only oriental classical languages or the Quran are taught. Public institutions include all other institutions whether under public management (*i.e.*, managed by Government, by local boards or by municipalities) or under private management; the latter may be either aided by Government, by local boards or by municipalities or unaided by grants in money by any of these bodies.

Recognized schools.

753. As regards schools not managed by Government, the classes more usually distinguished are "recognized" and "unrecognized" schools. The conditions of recognition will be found in the Madras Educational Rules. They deal with the general educational qualifications of the staff, the prohibition of managers, teachers and pupils from taking part in political agitation, the proportion of teachers to pupils, the accommodation and appliances, sanitary inspection, fees, the admission, promotion and withdrawal of pupils, discipline and registers.

Primary schools, etc.

754. *Secondly*, public institutions are classified according to the nature of the highest instruction given in them, as elementary schools (lower and higher), secondary schools, special schools (of art, of law, etc.), arts colleges (second grade and first grade) affiliated to the University of Madras and professional colleges (of law, etc.) also affiliated to the University. A school usually contains two or more of the following classes or forms, infant class, first to fourth classes, first to sixth forms. Schools are denoted as lower elementary, higher elementary, incomplete secondary, or complete secondary according as they contain any class between the infant and the third class, the fourth or higher elementary class up to the seventh, any form between the first and the fifth forms, or the sixth form. In second-grade colleges the highest instruction is that required for the Intermediate examination in Arts, while in first-grade colleges, pupils are educated for the B.A. degree honours or pass examination also. In each of the professional colleges instruction for the corresponding degree examination is given.

English and Vernacular schools.

755. *Lastly*, schools may be distinguished as English and Vernacular. English schools include all schools in which English is used as the general medium of instruction either throughout the school or in one or more of the higher classes or forms. Other schools are Vernacular schools.

The Training of Teachers.

Teachers' certificates.

756. Examinations are held annually with a view to test the qualifications of the candidates to teach in schools and colleges. Certificates are granted on the results of these examinations. They are of three kinds: (1) General Teachers' certificates or briefly Teachers' certificates, being certificates of ability to teach the subjects that ordinarily enter into the curricula of schools for general instruction, (2) Technical Teachers' certificates which are certificates of ability to teach in any one of the subjects included in the Government's technical examination scheme, and (3) Gymnastic Teachers' certificates. Teachers' certificates are of three grades: (1) Collegiate, granted only to persons who have taken the degree of Licentiate in Teaching in the University, (2) secondary and (3) elementary. There are three grades of Technical Teachers' certificates, namely, (1) advanced, (2) intermediate and (3) elementary. In each grade certificates are divided into two classes—first and second—according to the number of marks obtained; in some cases the educational qualifications of the candidates are also considered in determining the class of his certificate. Examinations are held at different centres by the Inspector of European and Training Schools for secondary and elementary certificates. No candidate is admitted to an examination unless he has gone through the prescribed course at a recognized training institution. The examination for the teachers' certificates comprises, *firstly*, a written examination in pedagogy and for elementary candidates in some subjects of a general education and, *secondly*, after not less than eighteen months spent in satisfactory

teaching work, a practical test in teaching a class, reading and doing black-board exercises. No candidate is admitted to the test for a technical teacher's certificate unless he has passed the advanced, or the intermediate, or the elementary technical examination, as the case may be, in the subject in which he desires to be tested, or an equivalent examination. The nature of the examination varies with the subject, but must include a practical test in teaching a class in the subject.

Training institutions.

757. Training institutions are divided into three classes, viz., training colleges, and secondary and elementary training schools, according to the grade of teachers' certificate for which the pupils are trained. In addition to the Teachers' College, Saidapet (paragraph 791), Government maintain at present 31 training schools for masters, five training schools for mistresses, and one for gymnastic instructors. There are in addition fourteen aided training schools for masters and fourteen for mistresses. The local boards also maintain from time to time sessional schools, *i.e.*, schools held for short sessions varying from three to six months in the year by specially appointed teachers who move from place to place according to the convenience of teachers in the neighbourhood who have not secured an elementary school-leaving certificate; their object is to improve the general education of such teachers and not to give instruction in the theory and art of teaching. Students from the Madras Presidency are admitted to the Government training institutions free, and those from elsewhere have to pay for a complete course a fee varying from Rs. 20 to Rs. 80 according to its grade. A course usually occupies two years, but for the L.T. degree is only one year. Stipends are granted by Government to the great majority of the students. Local boards also may grant stipends.

Classification of Schools for General Education.

758. Schools are classified according to the aims and character of the instruction given in them, as secondary and elementary. The secondary schools prepare their pupils for the University, the professions and the higher commercial and industrial pursuits. Elementary schools aim at giving education to the masses of a kind to fit them for life rather than to enter on a course of secondary education. The aim is as far as possible to keep the two classes of schools distinct, and transition from an elementary school to a secondary, though not forbidden, is discouraged. Consequently secondary schools should have the lower classes, the infant to the fourth, as well as the six forms. Secondary schools having fewer than these classes and forms are regarded as incomplete and in an intermediate state of development. An elementary school can have as many as seven standards above the infant. The two systems therefore run parallel as far as the third form in secondary schools and the seventh standard in elementary schools. A much higher standard of staff, buildings, and equipment is expected of secondary than of elementary schools, and a much higher rate of fees is charged in them. The courses also differ widely both in subjects and the manner of handling them. The work of the classes and three lower forms of a secondary school is preparatory for the three higher forms, that of the corresponding classes of an elementary school aims at giving an education so far as it goes, complete in itself.

Examinations for schools.

759. This simplification of classification and the difference of the relations now subsisting between secondary and elementary schools have made public examinations marking the transition from one grade of education to another unnecessary and the old primary and lower and upper secondary examinations have been abolished. The University Matriculation continues to be held, but the schools have universally taken up the Secondary School-Leaving Certificate scheme, and the number of candidates for Matriculation from this Presidency has become negligible.

The Secondary School-Leaving Certificate scheme.

760. The need for leaving certificates as evidence of a course of education having been satisfactorily accomplished, was however recognized. These certificates are of two grades, elementary and secondary. The first are granted on the result of an examination in the ordinary school subjects held in the elementary school itself by an officer not lower in rank than a Sub-Assistant Inspector. The second are granted by a Board, of which the Director is President, in accordance with the following scheme.

761. The list of subjects includes all those now studied in schools as well as others which it is thought ought to be provided for, and may be enlarged by any that the department may hereafter approve. The subjects are grouped in three divisions known as A, B and C. The A subjects—English, Vernacular composition and translation and elementary mathematics—will, it is assumed, not ordinarily

be omitted in any school and an annual public examination is held in them. The B subjects—geography, Indian history, elementary science, drawing, physical training and, for girls, domestic economy, and needle-work—should similarly find a place in every school course. Experience shows, however, that the subjection of pupils to a public examination in these subjects prevents variety and originality of treatment, induces cramming and impairs their value as mental training. It is impossible to say moreover what, if any, fixed quantity of knowledge in them is necessary for entrance on any career. There is therefore no public examination in them. The C subjects are numerous. They include all those subjects proficiency in one or more of which is plainly necessary for entering the University, a technical institution, or business, or is recognized as forming part of a good school education. Among them are the more specialized parts of elementary mathematics and science, algebra, geometry, physics, chemistry and botany, english history, classical, foreign and vernacular languages, commercial subjects, shorthand, type-writing, book-keeping, commercial arithmetic, practice and geography, agriculture, music, needle-work, dress-making and lace-making. Since heads of colleges, officers of Government and others require precise information as to the progress made by a pupil who claims to have to some extent specialized in any of these subjects a public examination is held in them. It is to be observed that the scheme makes no subject compulsory. The department expects schools to take up the A and B subjects and a school will not be allowed to omit any of them without good reason. It is also intended that each school shall take more than one of the C subjects, and it is hoped that schools will increasingly provide specialized instruction so that a bifurcation of courses resembling that of the Modern and Classical sides of the English Public School may become common. There is ample scope, moreover, for the framing of exceptional courses for exceptional schools. The scheme could be applied for instance with no difficulty to European schools, to girls' schools, or to schools in which English is not taken. With a view to correcting the prevalent view of school work as a mere preparation for examinations and to securing continuity of effort throughout the school course the scheme provides for the entry in the certificate of marks granted in school in all subjects taken up for not less than two terms in each of the higher forms, and this is the only evidence of a pupil's progress in the "B" subjects. The certificates are completed by the entry of the marks obtained in the A and C subjects in the public examination, for which pupils can only appear if considered fit when their certificates show attendance for a minimum number of days for a year in each of the higher forms. The certificates do not contain any statement that a pupil has or has not "passed" the public examination. They contain entries of the average marks gained in the various subjects in the Presidency and in the particular school and a comparison of the marks of any pupil with these should afford necessary information as to his proficiency. The system therefore gives to schools and to individual pupils a considerable choice of subjects and to teachers especially in the "B" subjects considerable freedom in framing courses and syllabuses. It also imposes on them a large measure of responsibility. They have, in the first place, the duty of assessing the marks in school which should not be done merely by class examinations, but as the result of careful observation of pupils' work of all kinds oral and written. They have further to make entries under physical training and games and general remarks on special aptitudes, character and conduct. The proper performance of this last duty requires intimate knowledge of individual pupils and it is hoped that its imposition will not only emphasize the importance of moral and physical culture but will also encourage personal interest in pupils. The scheme further makes provision for pupils who obtain certificates of a standard lower than they desire. They can rejoin a school for a year or more to improve their marks in any subject they have already taken or to take up new subjects.

Government Scholarships in Schools for General Education.

762. With a view to enable pupils of promise to prosecute their studies further, the Government award certain scholarships annually. Particulars regarding them are published annually in the *Fort St. George Gazette.*

In Elementary schools.

763. A considerable number of special scholarships are awarded to Mappilla pupils in the Ernad and Walavanad taluks in the Malabar district who are certified by the inspecting officers to have shown sufficient merit to deserve a scholarship. These scholarships are tenable for one year. The Mappillas are a class of

Muhammadans; the more indigent among them are ignorant and fanatical and their education is specially desired on account of their tendency to organise religious riots which lead to much loss of life. Special scholarships are also given to encourage the education of aborigines and to such tribes as Koyas and Savaras.

In Secondary schools.

764. Other scholarships are awarded annually to pupils who have completed their studies in the fourth class. A certain number of scholarships is allotted to each district but scholarships allotted to male pupils are awarded only to those whose pecuniary circumstances prevent them from prosecuting their studies without assistance. Candidates must be not more than fourteen years of age if girls and ordinarily not more than twelve years of age if boys.

765. There are also scholarships, each tenable for three years for pupils proceeding from the third to the fourth form. The allotment of these scholarships is similar to that of the ordinary scholarships awarded in the three lower forms. The limits of the ages of candidates are seventeen years in the case of girls and ordinarily fifteen years in the case of boys.

Standards in Technical Schools and Examinations.

766. Courses of instruction in twenty subjects in industrial and art schools and classes have been prescribed. In lower class technical schools, they are divided into four standards—A, B, C and D—of which standard A is the lowest. Higher class technical institutions include classes in which preparation for the elementary or elementary and intermediate or elementary, intermediate and advanced technical examinations is afforded and the courses of instruction are governed by the syllabuses for those examinations; they may also contain the lower standards, A, B, C and D. Classes in which pupils are prepared for elementary, intermediate or advanced technical examinations are called respectively elementary technical, intermediate technical and advanced technical classes.

767. Technical examinations are held annually under the control of the Commissioner for Government Examinations in 96 subjects which are included under 20 heads, namely, civil engineering, mechanical engineering, electrical engineering, physical science, geology, biology, sanitary science, pharmacy, veterinary science, commerce, music, drawing, etc., jeweller's work, printing, book-binding and type-founding, wood-work and metal-work, leather-work, textile fabrics, glass and pottery, tailoring and dress-making and cookery. The examinations are of three grades, elementary, intermediate and advanced. They are open to any person who has studied up to the seventh standard of an elementary school and qualified for an elementary School-Leaving Certificate or who produces satisfactory evidence of having attained a standard of general education not lower than this, or is certified by the head of a recognized technical school or class to have completed the prescribed course in the subject or subjects he wishes to present, or being a public servant is required to pass in any technical subject or who is permitted by the Commissioner to appear. The examinations are held at Madras and at various centres in the mufassal. Intermediate examinations are held in all subjects, but elementary and advanced examinations are held in certain subjects only. The syllabuses of the examinations are published in the *Fort St. George Gazette* and each syllabus is also published in the form of a pamphlet. Successful candidates are divided into two classes; their names are published in the *Fort St. George Gazette*, only those candidates who pass in the first class being arranged in order of merit. The examinations comprise written, oral and practical examinations or only one or two such branches of examination; if a practical examination is included in the test, a separate minimum number of marks has generally to be obtained in it. Certificates are granted to successful candidates; group certificates are awarded to candidates who pass all the examinations included in one of sixteen specified groups. There are six other groups of a higher standard; for passing in all the subjects included in one of these a diploma is granted. Diplomas are granted in veterinary science, electrical engineering, drawing and commerce. Chemists' and druggists' diplomas are awarded to candidates who pass the intermediate examinations in five prescribed subjects and serve satisfactorily for one year in the shop of an approved chemist and druggist.

Government Scholarships in Technical Schools.

768. Scholarships are awarded annually in recognized technical, industrial and art schools or classes, usually on the results of the examination in the standard or class immediately below that in which they are to be held. Candidates must have been pupils for one year in a recognised technical, industrial or art school or class and must, at the time of examination, be under 22 years of age to compete

for scholarships in the advanced technical classes, under 18 years of age to compete for scholarships in the intermediate technical classes and under 16 years of age in other cases. The scholarships can be held only in recognised technical, industrial or art schools or classes. Twenty special scholarships, having a monthly value of Rs. 2 each, are awarded annually to Mappillas attending a course in the special commercial class attached to the Government School of Commerce, Calicut; the course extends over a period of 14½ months.

Grants-in-aid.

769. The Local Government exerts considerable influence over education not only directly by the maintenance of institutions from Provincial funds and by the exercise of the extensive powers of control vested in them over local boards and municipal councils by the Acts relating to those bodies, but also indirectly by making grants to managers of institutions under private management on condition of compliance with certain regulations and by allowing local boards and municipal councils to make similar grants towards the cost of maintenance of elementary schools on the recommendation of officers of the Educational department. Such grants are now, however, commonly paid direct from Provincial funds. If aid is sought on behalf of an institution, the conditions of recognition must be fulfilled unless the institution has been exempted from their operation. Text-books which are not included in the authorized list of text-books may not be used in aided institutions without the express sanction of the Director. In schools for Europeans it may not be required as a condition of admitting or retaining any pupil that he shall attend or abstain from attending any Sunday school or any place of religious worship; or that he shall attend any religious observance or any instruction in religious subjects in the school or elsewhere to which his parent or guardian objects; or that he shall, if his parent or guardian wishes to withdraw him, attend the school on any day exclusively set apart for religious observance by the religious body to which his parent or guardian belongs; and the time or times during which any religious observance is practised or instruction in religious subjects is given at any meeting of such a school must be either at the beginning, or at the end of the meeting or both; the Director has, however, power to exempt schools from the conditions mentioned in this clause. The whole income of an aided school must be devoted to educational purposes.

Grants for teaching.

770. Teaching grants are given on four distinct systems: (1) for elementary schools for non-Europeans, (2) for secondary schools for non-Europeans, (3) for colleges and special schools and (4) for European schools. Teaching grants in elementary schools are given on the basis of the number of teachers and of pupils, the scale being Rs. 36 per annum for each teacher and As. 8 for each pupil in average daily attendance. The grant may be reduced or suspended in cases where there has been falsification of the registers or misrepresentation regarding the employment of teachers or the attendance of pupils, or violation of any of the conditions of recognition and aid or any other irregularity. They may also be increased by twenty-five per cent. for any improvement in efficiency, more especially for the introduction of any method of teaching calculated to train the children's faculties and powers of expression and observation, proper attention to physical exercise, and generally any attempt to fit the children to their position in life, and diminished to the same extent for inefficiency.

To elementary schools.

To secondary schools.

771. In secondary schools teaching grants are intended to supplement equally the income guaranteed from endowments, subscriptions, donations and other private sources, and in practice the sum assigned usually amounts to half the net cost of the school, excluding expenditure on account of which grants can otherwise be given such as on new buildings, furniture and apparatus, and assuming that fees are received from all pupils at rates fixed by Government and called the standard rates.

To colleges and special schools.

772. The grants for colleges and special schools are fixed by the Director after taking into consideration all the facts of each case.

To European schools.

773. Grants for European schools are fixed for three years by the Director after taking into account all the circumstances of individual cases.

Miscellaneous grants.

774. Grants can also be made towards scholarships and stipends, to managers of training institutions, to students in technical schools, for the maintenance of European children, for school buildings, for hostels or boarding-houses for students, for furniture, books and appliances required for schools, public libraries and reading-rooms, for needle-work or other art and industrial exhibitions and towards

endowments and prizes. In many cases the amount of grants which may be made depends on the sums contributed by managers of institutions or private persons. Full details regarding grants will be found in the Grant-in-Aid Code which is published in book form. The Government, however, reserve to themselves, the rules in the code notwithstanding, the right to withdraw or refuse any grant-in-aid at their discretion.

The University of Madras. *Act XXVII of 1857. Act XLVII of 1860.*

775. The University of Madras was constituted in 1857 on the model of the University of London and is an examining body conferring degrees in arts (including teaching), law, medicine and engineering. Regulations have been recently approved by Government which provide for courses of lectures, which although they may be delivered in any affiliated college, will be open without additional fee to all honour students and which will be University lectures since attendance at them will be part of a University course and, so far as funds admit, the lecturers will be remunerated by the University. There are also University studentships of Rs. 75 per mensem to enable graduates to undertake for two years research in any subject in the faculties of arts, medicine and engineering. The Senate, which consists of a Chancellor, a Vice-Chancellor, certain ex-officio fellows and not less than fifty nor more than one hundred fellows, of whom ten are elected by the faculties, ten by the registered graduates and the rest nominated by the Chancellor, is divided into the four faculties corresponding to the degrees just mentioned, and has power, subject to the approval of Government, to make by-laws and regulations. The present number of fellows is 96. The executive government of the University is vested in a

The Syndicate.

Syndicate consisting of the Vice-Chancellor, the Director of Public Instruction and elected fellows. The Syndicate appoints examiners, regulates examinations, keeps the accounts and carries on the correspondence of the University with the aid of a Registrar who is an officer appointed once in five years by the Syndicate, subject to the approval of the Senate. The by-laws provide also for the appointment of an Assistant Registrar. The Syndicate has power to recognize examinations of other Universities as equivalent to examinations held by the Madras University with a view to enable candidates to appear for the examinations of this University. There

The boards of studies.

are fourteen boards of studies in the several branches of learning; no board consists of less than three or more than twelve members; the latter are appointed by the Syndicate and hold office for three years. All persons possessing the necessary special knowledge are eligible whether fellows or not. The boards are empowered to submit for the consideration of the Syndicate nominations of examiners and assistant examiners in their respective branches, to recommend text-books from year to year, to recommend persons to edit selections from writings in vernacular languages to be prescribed for the Matriculation examination, to consult specialists who are not fellows of the University, and to consider and report on all matters referred to them by the Syndicate. Heads of affiliated colleges, members of the boards of studies and fellows of the University are competent to recommend persons to be appointed examiners, and the Syndicate finally sanctions their appointment. Each of the boards of examiners suggests to the Syndicate the names

The Board of Examiners.

of such assistant examiners and chief assistant examiners as it considers to be specially qualified in its particular subject.

Honorary degrees. *Act I of 1884.*

776. The power of conferring honorary degrees was granted in 1884. The honorary degree of Doctor in the Faculty of Law has been conferred on two persons, viz., the Rev. William Miller, M.A., LL.D., D.D., C.I.E., and Sir S. Subramanya Aiyar, K.C.I.E.

Ordinary degrees.

777. Entrance on a University course is Matriculation which may be effected in one of two ways, first by obtaining admission to an affiliated college on the strength of a Secondary School-Leaving Certificate considered by the head of the college to afford evidence of fitness for a University course, second by passing the Matriculation examination of the University or some other examination accepted by the Syndicate as equivalent, *e.g.*, the High school examination under the Code of Regulations for European schools. The first manner of Matriculation has almost entirely displaced the second. A description of the Matriculation examination is, therefore, unnecessary. The first University examination after

Arts.

Matriculation is the Intermediate examination in Arts. This must be passed by all persons proceeding to a degree in arts and in medicine or in engineering and they may appear for it two years after Matriculation. It consists of three parts (1) English, (2) Vernacular composition or translation from a classical language, both

of which must be taken by all candidates and (3) certain other subjects from which he makes a selection. These are arranged in three groups, (I) mathematics, physics, chemistry, (II) natural history, physics, chemistry, (III) ancient and modern history, logic, classical, modern European and Indian vernacular languages. A candidate may take either group (I) or (II) or three subjects from group (III) of which one must be ancient or modern history or logic. For the degree of B.A., candidates may take either a pass or an honours course. The first takes two, the second three years. The subjects for the first course are English and either mathematics, physical science, natural science, logic, psychology and ethics, history and economics, and two languages already studied in the intermediate course. The subjects for the honour courses are the same with the addition of English language and literature, Sanskrit language and literature and Arabic language and literature. The compulsory English part of the examination is much less extensive for honours than for pass men. A candidate's selection of studies in the B.A. courses is determined by the subjects he took up for the Intermediate examination, the courses for the B.A. being related to those for the Intermediate. The degree of B.A. is conferred on all persons who pass whether in the pass or honours examination and the degree of M.A. upon honours men without further examination two years after obtaining honours. Persons who have taken the B.A. degree (pass) may subsequently take an honours course of only two years, and if successful in the examination, graduate M.A. at once. Graduates may appear after satisfactorily completing a course of one year in a college affiliated in teaching, for the examination for the degree of L.T. This is in three parts (1) the general principles of teaching, (2) the methods appropriate to the teaching of English and of all subjects to young children, (3) the methods of teaching (*a*) mathematics, (*b*) physical science, (*c*) natural science, (*d*) history and geography, (*e*) two languages other than English. All candidates must take (1) and (2) and one subject under (3). The practical part of the examination which consisted in teaching a class in the presence of examiners has been dropped.

Law.

778. Candidates for the First examination in Law must have taken the B.A. or other accepted degree and have attended courses of lectures in the prescribed subjects at a recognized law college for two consecutive terms. The subjects of the examination are jurisprudence, Roman law, the law of contracts and the law of torts. No candidate may appear for the B.L. degree examination until he has passed the First examination in Law and attended courses of lectures in the prescribed subjects at a recognized law college for two terms. Candidates are examined in the theory of law of property, Hindu and Muhammadan law, the law of evidence, Indian constitutional law and criminal law. Candidates for the degree of Master of Laws are not admitted to the examination until two years have elapsed from the date on which they passed the B.L. degree examination; they are examined in one of four branches. Successful candidates in each of these three examinations are arranged in three classes in the order of proficiency.

Medicine.

779. The faculty of medicine hold examinations for the degrees of Licentiate in Medicine and Surgery, of Bachelor of Medicine and Master in Surgery and of Bachelor in Sanitary Science. The L.M. and S. degree examinations comprise the first, the second and the final examinations which must be passed successively. These examinations are partly written and partly oral and practical. Candidates must have attended the prescribed courses of instruction and practice in recognized institutions and hospitals. No candidate may appear for the first examination, which includes anatomy, physiology and chemistry unless he has completed his nineteenth year and been engaged in medical studies for two years after passing the First or the Intermediate examination in Arts. The second examination comprises pathology, hygiene, medical jurisprudence, materia medica and therapeutics and practical pharmacy; and the final examination includes medicine, surgery, midwifery and ophthalmology. To obtain the M.B. and C.M. degree candidates must pass the first, the second, the third and the final M.B. and C.M examinations in this order. The regulations governing these examinations are similar to those relating to the L.M. and S. degree examinations. A candidate may appear for the first examination after completing his eighteenth year. The subjects of the examinations are respectively chemistry, physics and biology; anatomy, physiology and chemistry; pathology, bacteriology, materia medica and therapeutics, hygiene and medical jurisprudence; medicine, surgery, midwifery and ophthalmology.

Candidates for the degree of M.D. must have taken the degree of M.B. and C.M. or some equivalent degree. No examination is held, but they are required to submit to the medical faculty a thesis or dissertation treating of any branch of medicine, surgery, midwifery or sanitary science which they may have made the special subject of study since passing the M.B. and C.M. or other accepted examination. Candidates must produce certificates to show that they have been engaged in the practice of their profession for two years if they have taken the B.A. degree, and for three years if they have not. Persons who have passed the M.B. and C.M. or L.M. and S. degree examination or an equivalent examination may appear for the B.S.Sc. degree examination if they have attended the prescribed courses of lectures. The subjects of examination include physics, chemistry, sanitary law, vital statistics, pathology, hygiene, sanitation, sanitary engineering, drawing and mensuration; candidates must also write a report on the sanitary conditions of some actual locality. Previous to the institution of the University, medical diplomas were conferred by the Medical College.

Engineering.

780. The only examinations in the faculty of engineering are the First examination in Engineering and the examination for the degree of Bachelor of Engineering. Candidates who appear for these examinations must have passed the First or the Intermediate examination in Arts and the First examination in Engineering respectively and must have undergone certain specified courses of instruction. The subjects of the first examination are mathematics, science and drawing. There are two branches for the B.E. degree examination, the civil branch and the mechanical branch. The subjects comprised in these branches are respectively mathematics, civil engineering and building, estimating and topographical drawing; and mathematics, mechanical engineering and machine drawing and estimating. Successful candidates are arranged in order of proficiency.

Graduates.

781. Up to the 31st July 1911, 277 graduates had proceeded to the degree of Master of Arts; the number on the rolls at present is 225, of whom 170 are Brahmans, 26 non-Brahman Hindus, including one Jain, 20 Indian Christians, 7 Europeans and Eurasians and 2 Muhammadans. Three women have taken the M.A. degree, two of them being Indian Christians and one a European. Of the 30 Masters of Laws on the rolls, 26 are Brahmans; and of 2,138 Bachelors of Laws, 1,612 are Brahmans and 13 are Muhammadans. Out of 9,883 Bachelors of Arts, 7,013 are Brahmans and 119 are Muhammadans. Again, among 112 Bachelors of Engineering, 87 are Brahmans, and there is not a single Muhammadan; of 769 Licentiates in Teaching 555 are Brahmans.

Income.

782. Fees ranging from Rs. 6 to Rs. 100 each are levied from the candidates for the various examinations held by the University. There are also other sources of income, such as exemption certificates and convocation fees, etc. These cover the whole cost of the University and leave a surplus; the balance in favour of the University on the 1st April 1912 amounted to Rs. 6,80,000 in Government securities and nearly Rs. 1,46,000 in cash. The University also administers many endowments, instituted for the encouragement of learning by the award of scholarships, prizes and medals.

Colleges affiliated to the University.

783. Educational institutions or departments of such institutions may be affiliated to the University in arts, law, medicine or engineering. The advantages of affiliation include the right to enter students for the corresponding University examinations and the recognition by the authorities of certificates of attendance at lectures by the principals and members of the staff of the institution. The rules of affiliation include conditions regarding returns and registers, the admission of students, inspection and the number of working days. The privilege of affiliation may be withdrawn from an institution which has ceased to fulfil the conditions of affiliation or to present candidates for examination for a period of three successive years. The principals and professors of affiliated colleges managed by Government are generally members of the Indian Educational service.

The Arts Colleges.

784. The Government maintain four arts colleges, namely, the Presidency College at Madras and the colleges at Kumbakōnam, Rajahmundry and Mangalore, of these the Presidency College is affiliated in honours and the Mangalore College only for courses for the Intermediate examination. Local bodies maintain three colleges affiliated for the intermediate courses. A number of colleges both for men and for women are aided. The majority of the colleges, not under public management, are connected with Christian Missions: of the aided colleges the Christian and

St. Joseph's Colleges are affiliated for honours courses. Pachaiyappa's College, St. Aloysius' College, Mangalore, the Noble College, Masulipatam, the S.P.G. College, Trichinopoly, and the Maharaja's College, Vizianagram, are affiliated for B.A. pass courses and the rest for intermediate courses.

Scholarships.

785. Scholarships tenable in any affiliated college are annually awarded by Government to enable persons to continue their education beyond the secondary stage. The cases of girls, Uriyas, Mappillas and Muhammadans, are specially considered in awarding these. A notification regarding them is published annually in the *Fort St. George Gazette*.

The Law College.

786. The Law College, Madras, is at present the only educational institution in the Presidency which affords facilities for the study of law. It was opened in 1891 as it was found that the law classes formerly attached to the Presidency College were unwieldy and the course of instruction was inadequate. The ostensible aim of the college is instruction in the theory of law; practically it is intended to afford instruction to students preparing for the various examinations in law. The college moved into its present habitation in 1899. It is affiliated to the Madras University. The rules regulating its constitution and working are sanctioned by the Local Government. The staff consists of a principal, who is also the senior professor, a junior professor, and not less than two assistant professors. The general management of the college is vested in a council subject to the general control of the Director of Public Instruction; the council consists of two or more judges of the High Court, the principal, the junior professor and such other members as may be appointed by Government; the executive management of the college is vested in the principal who is independent of the council in all matters of discipline. The college contains three kinds of classes: (i) B.L. classes, (ii) Pleadership classes and (iii) special classes for students attending the college but not preparing for the B.L. degree and Pleadership examinations. Fees are levied at half rates from Muhammadans and Uriyas. There are two terms a year. The Morehead scholarship, which is worth Rs. 17-8-0 per mensem and is tenable for one year, is awarded annually to the student of the Law College who stands highest in the list of successful candidates at the First Examination in Law held at the end of his second term of study. Two college scholarships, each worth Rs. 100 a term (Rs. 200 per annum) and tenable for one year, are awarded annually in the B.L. class on the results of the First Examination in Law. One of these scholarships must be awarded to a Muhammadan or Uriya and the other to a student who is not a Muhammadan or Uriya. Lending and consulting libraries are attached to the college. A calendar is published annually.

The Medical College.

787. A medical school was established by Government in 1835; in 1851 the school became a college. The control of the college was transferred in 1855 from the Medical Board to the Director of Public Instruction and from him to the Surgeon-General in 1911 and in 1857 the college was affiliated to the University of Madras. Buildings for the accommodation of the college have been erected and extended from time to time. The government of the college is, subject to the general control of the Surgeon-General, now vested in the principal, aided by a consultative council composed of all the professors and of any other members who may be appointed by Government. The staff consists of a principal, thirteen professors, four lecturers, eight assistant professors and a gymnastic instructor. The college contains four departments, viz.: (i) the College department, in which students are educated for the M B. and C.M. and the L.M. and S. degrees; (ii) the Apothecary's department, consisting only of Military pupils, admitted by competitive examination to qualify as Military Assistant Surgeons, and of female pupils; (iii) the Chemist and Druggist department; and (iv) the Sanitary Inspector's department. Attendance at the lectures given in the Medical College is recognised in Great Britain as partial qualification for degrees and diplomas granted in that country. The scholarships, medals and prizes awarded to pupils of the College are too numerous to be detailed here; information regarding them can be obtained from the calendar of the Medical College, which is published annually. Museums, a library and a gymnasium are attached to the College. Pupils have also the advantage of attending classes held in the General Hospital, the Government Ophthalmic Hospital, the Government Maternity Hospital, the Native Infirmary and the Lunatic Asylum.

The College of Agriculture.

788. The year 1876 marks the first step taken by the Government of Madras to inaugurate a system of Agricultural education. In that year a School of Agriculture was established at Saidapet. Prior to this date instruction of an elementary character had been given to a few apprentices. In 1878 the name of the institution was changed into that of "Agricultural College." The permanent buildings for the College were completed in 1881. The Principal of the College was also the Superintendent of the Government Farm at Saidapet. The educational side of his work was controlled by the Director of Public Instruction while as Superintendent of the Farm he was under the control of the Board of Revenue. In 1885 the farm was abolished and the College became an institution controlled solely by the Educational Department. With the impetus given to the development of agriculture in this Presidency a radical change was effected by the abolition of the College at Saidapet and its complete reconstruction in another form at Coimbatore. Admission to the College at Saidapet ceased in January 1905 and steps were at once taken to found an institution under the direct control of the Revenue Department worthy of the prominent place Madras had always taken in Agricultural education. The present site near Coimbatore about three miles to the west of the town was selected and work began in the early part of 1906. Attached to the College are a farm of over 400 acres in extent, a library, a hostel and a veterinary hospital. The first students entered the College in June 1908 and final diplomas were first awarded in March 1911. The College is intended primarily for the scientific and practical training of those who intend to make agriculture their main profession. The responsibility for the discipline and management of the College vests in the Principal, subject to the control of the Director of Agriculture. The Principal of the College is an expert agriculturist and he is assisted by four scientific experts—the Government Economic Botanist, the Government Agricultural Chemist, the Government Mycologist and the Government Entomologist—who perform the dual duties of teaching and research at the College. Besides these, there are a number of assistants under each expert. The full course at the College extends over three years; 20 students only are admitted each year, so that there are at a time 60 students under training. The first year's classroom work is the acquirement of the rudiments of the pure sciences, the application of which to the business of farming will form the work of the students for their second year. They learn the elements of chemistry, biology and physics in their first year passing on in their second to agricultural chemistry, agricultural botany, mycology, economic entomology, veterinary science and agricultural engineering. The work in the laboratory is supplemented by practical work in the field which forms a very large and important part of the training. The knowledge gained in the farm operations enables the students to cultivate their own plots in the next year, both in the wet and dry lands. In the third year they continue to attend lectures on agriculture including the subjects of farm management, farm accounts and rural economy. The students perform two district tours. Students aiming at the diploma in agriculture must take courses in all the prescribed subjects combining both practical and theoretical work in each subject. At the discretion of the Principal special courses will be arranged for a limited number of students who do not wish to take the full course. The College year commences on the 7th June and closes on the 31st March and is divided into three terms. Applicants for admission should have reached 18 years of age and have passed at least the Matriculation examination or have obtained a secondary school-leaving certificate or have passed any other examination declared equivalent thereto. Exemption from this rule is, however, granted as a special case on behalf of students of the agricultural classes. No scholarships are awarded by Government; no fees are charged for tuition or lodging to students of this Presidency or Coorg. Students of Native States are charged Rs. 240 per annum for education and lodging. On the termination of the third year's course a diploma conveying the title of Licentiate in Agriculture is granted to successful candidates. Students who have completed the full course but fail to obtain the diploma (for which they are not allowed to enter more than once) and students who have completed a special course are granted certificates to that effect. The rules of the college are provisional only and may be altered by Government with retrospective effect. As for the prospects of the successful students who do not own sufficient land to which they might return there are opportunities for employment as managers or agents to

zamindars, planters and estate owners. The Government Agricultural Department also offers opportunities of advancement to holders of diplomas.

The Veterinary College.

789. Prior to 1903 there was no regular institution for imparting veterinary instruction in the Presidency. A course of lectures on veterinary science was delivered to the students of Agriculture at the Agricultural College, Saidapet, by the Superintendent, Civil Veterinary Department. The question of establishing a veterinary institution became urgent in view mainly of the difficulty experienced in obtaining qualified subordinates for veterinary duties. A scheme was drawn up and approved for the establishment of a veterinary institution in connection with the infirmary attached to the S.P.C.A. at Vepery in the Madras City. The institution was inaugurated in October 1903. Regular classes commenced only in January 1904 and the institution was designated "The Madras Veterinary College". The College affords theoretical and practical instruction in subjects appertaining to the veterinary profession with the object of training men for service under Government, municipalities, local boards or private employers. The staff of the College consists of a Principal, an Assistant Principal and three lecturers with a subordinate establishment. The responsibility for the discipline and management of the College is vested in the Principal who is subject to the control of the Board of Revenue. A veterinary hospital, a museum, a library, a shoeing forge and a bostel are attached to the College. A bacteriological laboratory has also been sanctioned. Candidates applying for admission should not be under 18 years of age and should possess a good colloquial knowledge of English. The college year commences in January and is divided into two terms. Candidates when admitted will be on probation for two months and may be removed if found unsatisfactory. The course of study extends over three years. The number of students in each class is limited to 20. The students are given practical instruction during the first year in nursing, dressing, handling, casting and securing animals as well as in the names of instruments and appliances used in ordinary practice. During the second year they attend hospital practice and receive clinical instruction. They also attend at the forge and pharmacy, carry out dissections and perform operations on dead subjects. In the third year the students perform the duties of clinical clerks and dressers, perform operations on dead subjects and afterwards on living animals, and conduct post-mortem examination. Students holding a diploma in Agriculture need not attend the first year's course, but they will be examined in the first and the second year's subjects at the end of their first year of attendance at the college. Tuition at the College is free to students of this Presidency, but they have to pay for their lodgings. Students from Native States except such as bind themselves to serve the Government are charged a fee of Rs. 240 per mensem for education and lodging. Twenty scholarships are awarded annually, 2 of the value of Rs. 20 per mensem to graduates of a University and the remaining 18 of the value of Rs. 10 per mensem to other passed candidates. In consideration of the free tuition students are required to execute an agreement binding themselves to serve Government in the Civil Veterinary Department for at least five years and to refund to Government the total cost of their education, which is at present fixed at Rs. 240 per annum, in case they are unwilling to serve Government. Examinations are conducted orally and are held annually in December in all the classes. A diploma as "graduate in veterinary science" is awarded to students who have completed the full three years' study at the college and have passed the final examination. Graduates of the college are eligible for appointment to posts in the provincial and subordinate services of the Civil Veterinary Department in the Presidency.

The College of Engineering.

790. This institution established originally in the year 1794 as a Survey School, developed into a Civil Engineering College in 1857. It was affiliated to the Madras University in 1877 and re-organised in 1886 and constituted a College of Engineering. The College affords theoretical and practical instruction in subjects, a knowledge of which is necessary to fit persons for employment as engineers, surveyors and draftsmen. The responsibility for the discipline and management of the college is vested in the principal, under the control of the Director of Public Instruction. The full staff consists of a principal, three professors and a number of instructors and assistants who are recruited from the cadre of the Department of Public Works. There are also a workshop instructor and an instructor in gymnastics. Five military students are admitted annually on the results of a competitive examination. The College contains four classes: (1) the Engineer class for

training civil and mechanical engineers; (2) the upper subordinate class for training upper subordinates for the Public Works Department, the Revenue Department, Local Boards and Municipalities; (3) the lower subordinate class for training lower subordinates, surveyors and draftsmen, for the same departments and for the Survey Department, Railways, etc.; (4) the probationary subordinate class for training candidates before they enter the upper or lower subordinate class. The courses for classes Nos. (1) and (2) extend over a period of four years in the college, the fifth year being principally spent on works. At the end of two years in the probationary class a student is drafted into either the upper or lower subordinate class in which he stays for a further year according to his fitness. Persons who have passed the Intermediate examination in Group 1 are admitted to the Engineer classes and persons who have at least passed the Matriculation examination or hold satisfactory secondary school leaving certificates to the probationary class. Casual students are also admitted to the Engineer class. Students in the higher course of engineering are prepared for the B.E. degree examinations of the Madras University. Government award scholarships tenable in the college and there are besides endowed scholarships. One student of mechanical engineering is permitted every year to join the Madras Railway Company's locomotive workshops at Perambur; half the premium (Rs. 500) is defrayed by the Educational Department and the other half by the student; the premium is for a course of two years. Four stipends are awarded annually to students who desire to be trained as teachers in technical or industrial schools. Prizes and medals are awarded on the results of the college examinations. On successful completion of a course in either of the first two classes mentioned above, a student is granted a diploma; a student who completes successfully a course in the lower subordinate class is granted a certificate. Persons holding such diplomas and certificates have prior claims to certain appointments in the Public Works Department and under Local Boards. Extracts from the Code of Rules are published annually in the first issue of the *Fort St. George Gazette* in January; the rules are also contained in the calendar of the College of Engineering which is published annually.

The Teachers' College, Saidapet.

791. This institution, established as the Government Normal School in 1856, was converted into a college and affiliated to the University in 1886. The staff consists of a Principal, a Vice-Principal, four lecturers, a drawing-master, a gymnastic instructor and a number of assistants. The college is intended for the training of graduate teachers for employment in the Madras Presidency, but if accommodation is available students from Native States are also admitted. There is also at present a secondary training class. The students receive stipends from Government ranging from Rs. 10 to Rs. 20 per mensem, according to their qualifications. They are prepared for the L.T. degree examination of the Madras University. Instruction is also given to the students in drill, drawing and agriculture and they may appear for public examinations in these subjects. A model school of the secondary standard is attached to the college and has an independent staff of teachers. There is also a Kindergarten department presided over by a European lady. The college has a large library and an educational museum. Connected with the college are a Teachers' Association, of which all the students are members, and a Reading Room and Recreation Club. A hostel consisting of three sections, one for Smartha Brahmans, one for Vaishnava Brahmans and one for Christian students is attached to the college. The college accommodation has recently been greatly extended by the transfer to it of the buildings formerly occupied by the College of Agriculture, and it has been provided with well-equipped laboratories for physical and natural science. A calendar of the Teachers' College is published annually.

The School of Arts.

792. The Madras School of Arts was established in 1850. It is now equipped and managed as a school of industrial art in which, while drawing is taught, it is in the main made subsidiary to industrial work. This is carried on in the following departments:—wood-work, metal-work, jewellery, engraving, lacquer-work, carpet-weaving, and modelling. There is also a painting department where students can study with a view to painting pictures or to passing the technical examinations in drawing and painting. Some of the pupils in the school are in receipt of scholarships from Government, but the majority neither receive scholarships nor pay fees. Fees are charged, however, for instruction in drawing, and painting taken up for their own sake. Pupils appear for the Government Technical Examinations in the

subjects taken up. The articles manufactured in the school are sent for sale to the Victoria Technical Institute.

The Lawrence Asylum.

793. About the beginning of the year 1856 Sir Henry Lawrence, K.C.B., offered a donation of Rs. 5,000 and a subscription of Rs. 1,000 a year, so long as he might be in India, for the establishment at some hill station in this Presidency of an institution on the lines of the Lawrence Asylums at Sanawār and at Mount Abu for the benefit of children of soldiers of the British army who were serving or had served in Madras. The Lawrence Asylum was accordingly established in August 1858 on the "Stonehouse" property at Ootacamund with the aid of the foundation money and of subscriptions raised in the Army and in England. It was amalgamated with the Madras Military Male Orphan Asylum in 1871 on the completion of the new buildings at Lovedale near Ootacamund. Though the Asylum does not belong to Government, it is largely controlled by Government who have sanctioned a code of rules relating to its management and constitution and furnish it with two fixed annual grants-in-aid amounting to Rs. 54,000. The institution consists of two branches, for boys and girls, respectively, the maximum strength of each branch being 300 and 165. It is intended for European and Eurasian children, especially orphan children of military officers and soldiers; its objects are to secure for them a healthy and invigorating climate, to remove them from objectionable surroundings, to afford them secular and religious education and to train them to earn their livelihood. Children labouring under any form of disease, mental or physical, which is likely to incapacitate them for the ordinary duties of life and, except with the special sanction of the Committee, the children of soldiers who have been dismissed the service by sentence of court-martial are not admitted. The management of the Asylum is vested in a Committee, of which the General Officer Commanding the Ninth Division is *ex-officio* chairman and the Principal is ordinarily the secretary. Members of the Committee may visit the institution at any time and the Committee elect six ladies to visit the female branch. The staff consists of a principal, a headmaster in the branch for boys, a headmistress in the branch for girls and several assistant teachers in each branch. Instruction in literary subjects is given to boys as far as the standard of the European Schools High School examination, but only such pupils as would clearly benefit by a high school education are allowed to go beyond the middle school. Instruction is also given in technical subjects including shorthand, type-writing and telegraphy and special classes are held, when necessary, for pupils preparing for the medical and railway examinations. The instruction in religion includes the exposition of the main truths of Christianity without allusion to controverted points of faith or practice; at the time when religious instruction is given in school, clergymen of the Church of Rome or ministers of the Church of Scotland or other Presbyterian Church or of a Non-conformist body may, on giving previous notice to the Principal, attend and give instruction to the children of their respective communions. The children of soldiers of the rank of corporal or private or of pensioners who are drawing only the pay of those ranks are admitted free, but fees have generally to be paid for children whose fathers or step-fathers hold higher ranks and for the children of civilians, not being orphans and destitute. Scholarships are awarded to pupils of promise to enable them to complete a course in an arts or a technical college or for industrial training in some well-known firm or institution. Stipends are also given to girls to enable them to be trained as teachers.

The Public Service Examinations.

794. No person can be appointed in this Presidency to a Government post carrying a higher salary than Rs. 20 unless he has passed through the secondary stage of education with success. Government accept as evidence of having done so a pass in the late Madras Upper Secondary examination, in the late Madras Higher examination for Women, in the Matriculation examination of any Indian University, in a School Final examination, in the European Schools High School examination, and in certain examinations held in Great Britain, or a Madras Secondary School Leaving Certificate showing sufficient knowledge in the ordinary subjects and in two optional subjects other than shorthand and type-writing. Persons in the public service have to pass certain special tests before they can hold some of the higher appointments; these tests include precis-writing, translation, accounts, civil judicial, criminal judicial, revenue, sea customs, and jail tests. Six tests for officers of the Salt, Abkāri and Separate Revenue Department have

been prescribed. Although the higher appointments are not expressly reserved for persons whose general education has gone beyond the secondary stage, yet by and through the operation of the rules regulating the special tests some of the higher appointments have come to be restricted to such persons. Thus, there is no rule which directly declares that none but candidates who have passed at least the Intermediate examination in Arts held by the Madras University shall be appointed Tahsildars or Inspectors of Police, but ordinarily only persons who have passed that examination are admitted to the Criminal Judicial tests prescribed for those appointments. Similarly no person who is not a graduate can ordinarily expect to become a Deputy Collector, as none but graduates are, as a rule, permitted to appear for the Revenue test, Higher grade, which is one of the special tests prescribed for the office of Deputy Collector. Except for such restrictions regarding general educational qualifications the examinations are open to all candidates; they are not competitive but the selection of persons for certain appointments is restricted to persons who have passed the prescribed tests.

The Commissioner for Government Examinations.

795. For the conduct of examinations held by Government, the Commissionership for the Uncovenanted Civil Service examinations, or the Commissionership for Government examinations, as the office is now called, was instituted in 1860. It was at first entrusted to the Director of Public Instruction, but was subsequently held for many years by a Member of the Board of Revenue. Since 1880, however, it has been held by the Director of Public Instruction. The correspondence of the Commissioner is carried on by a Secretary. The examiners for the several examinations under his control are appointed by the Commissioner and are paid out of the fees realized from the candidates. Most of the examinations prescribed for entry into the various departments of the public service or for promotion in it are conducted by the Commissioner besides others for the promotion of general and technical education. The examinations are held at a large number of centres in the Presidency, and in some Native States also under certain conditions.

The Board of Examiners.

796. With a view to ensuring the acquisition of the requisite knowledge of languages, law, codes, etc., by the officers of the several departments, the Government have prescribed certain examinations to be passed by them in the earlier stages of their careers and have offered rewards to officers who pass more advanced examinations in languages. To conduct these examinations a Board of Examiners has been constituted. The present Board consists of a president who is usually a member of the Board of Revenue, certain *ex-officio* members and a varying number of special members appointed by Government from time to time. The Accountant-General, the Inspector-General of Police, the Director of Survey, the Conservator of Forests, Central Circle, the Chief Presidency Magistrate, the Professor of Medical Jurisprudence in the Medical College, the Registrar of the High Court and the Translators to Government are *ex-officio* members of the Board. The officers who are examined by the Board include members of the Indian Civil Service, Police officers, Cantonment Magistrates, Forest officers, officers in the Provincial Civil Service, and European and Eurasian officers of the Educational department. Military officers including commissioned medical officers who are District Medical and Sanitary officers are examined in the vernacular languages. Officers of the South Indian and Madras & Southern Mahratta Railway Companies and of the Bank of Madras are also examined in the vernacular languages. The examinations are usually held at Madras, but some may be held simultaneously at other stations.

The Pleadership Examination.

797. The pleadership examination was instituted in 1879 for the purpose of ascertaining the qualifications of persons desirous of becoming pleaders in courts subordinate to the High Court, with reference to the rules framed by the High Court under section 6 of the Legal Practitioners' Act (XIII of 1879). The Examination Board consists of a Judge of the High Court, the Advocate-General, the Government Pleader, the Principal of the Law College, Madras, and a High Court vakil, with the Deputy Registrar of the High Court, Appellate Side, as member and secretary. The examination is held annually during January or February at Madras. The High Court, from time to time, prescribes subjects of examination and determines the general qualifications and the standard of proficiency required for each grade of certificates. Examiners are appointed by Government on the recommendation of the Examination Board to conduct each examination.

EDUCATION. (1911–1912.)

[*Report on Public Instruction in the Madras Presidency for 1911–1912 and for the quinquennium 1906–1907 to 1911–1912, 2 volumes; Statistics of British India, Part VII—Educational.*]

Progress in the quinquennial period.

798. The work of the quinquennium lay largely in completing and consolidating the changes introduced in consequence of the Simla Conference of 1901, the issue of the resolution of the Government of India on Educational policy in March 1904, and the passing of the Indian Universities Act of 1904. The chief events of the period were the reorganization of the inspecting staff, made necessary by the rapid development of education of all grades; the strengthening of the staffs of the Government Arts colleges to enable them to meet the demands made on them by the new University courses; the improved equipment of colleges for special education; the introduction of the Secondary School-leaving Certificate system; the revision of the standard rates of fees owing to the increasing cost of education consequent on the growing demand for efficiency; the development of female education; the increase in the number of board schools and the improvement of education in Sanskrit.

General Statistics.

Number and strength of institutions.

Management.

Percentages of attendance.

799. During the year the total number of public institutions rose from 25,344 to 25,859 and their strength from 1,087,562 to 1,152,886. The number of private institutions, advanced and elementary, was 5,193 with a strength of 127,179. Classified according to management, out of a total of 31,052 institutions of all kinds 5,027 were under public management, Government managing 408, municipal councils 357, local boards 4,254 and Sandūr State 8. The remaining 26,025 were under private management, 16,356 being aided from public funds, 4,476 being unaided and 5,193 indigenous and private schools. The percentages of pupils to the total population of school-age (taking the figures of the 1911 census) varied in the different districts from 86·8 in Madras to 21·0 in Vizagapatam in the case of males and from 36·0 in Madras to 3·4 in Ganjām in the case of females. Dividing the districts roughly into classes in the case of the education of boys, the only districts in which the percentage of pupils to the population of school-age fell below 25 were Vizagapatam (21·0), Anantapur (21·8) and Nellore (23·4); those in which the percentage was between 25 and 30 were Trichinopoly (26·7), Salem (27·5) and Kurnool (29·3); between 30 and 35 came Coimbatore (30·5) and Bellary (30·7); between 35 and 40 Gōdāvari (35·3), Ganjām (35·5), South Canara (35·8), South Arcot (35·9), North Arcot (36·2), Guntūr (36·6), Kistna (36·8), Chingleput (37·7) and Cuddapah (38·9); above 40 were Madras (86·8), Tinnevelly (64·7), Madura (56·2), the Nilgiris (52·6), Malabar (46·0) and Tanjore (45·2). In the case of girls the percentages were 36·0 in Madras, 18·9 in the Nilgiris, 13·9 in Tinnevelly, 13·6 in Malabar, 13·5 in Kistna, 11·4 in Gōdāvari and 10·9 in Guntūr; and below 10 in all other districts, falling as low as 3·4 in Ganjām. During the quinquennium the total number of public institutions rose by 11·2 per cent. and their total strength by 31·7 per cent. Both the number and strength of private institutions showed a decline, mainly due to the recognition of private institutions which gave them the status of public ones. Taking public and private institutions together the total strength increased by 27·1 per cent. as against an increase of 17 per cent. in the preceding quinquennium. The increase in the number of scholars has been shared by all the districts, Malabar, Kistna, Vizagapatam, Gōdāvari and Anantapur all showing an advance of over 40 per cent. The increase has been 20 per cent. or more in Chingleput, South Arcot, Coimbatore, Trichinopoly, Tinnevelly and South Canara. The number of Government institutions, of municipal and local board schools and of aided institutions has steadily risen, while there has been a decline in the number of unaided institutions, although the number of unaided elementary schools has not greatly diminished. The percentage of male scholars to the male population of school-age increased from 29·8 (census of 1901) to 34·4 (census of 1911) during the quinquennium, and the corresponding percentage for female scholars rose from 5·7 to 7·2; the percentage of the number of scholars, male and female, to the total population of school-age rising from 17·6 to 20·6. This increase was apparent in all the districts of the Presidency except Trichinopoly.

Districts.

Quinquennial figures.

Finance.

Expenditure.

800. The total expenditure of the year rose from Rs. 1,27,67,506 to Rupees 1,35,65,102 of which Rs. 94,53,469 or 69·69 per cent. represented *direct* expenditure

and Rs. 41,11,633 or 30·31 per cent. *indirect* expenditure of which the main items were: University Rs. 1·97 lakhs; direction Rs. 0·76 lakh; inspection Rs. 7·40 lakhs, scholarships Rs. 1·31 lakhs; buildings Rs. 11·07 lakhs; special grants for furniture and apparatus Rs. 2·65 lakhs and miscellaneous Rs. 15·92 lakhs. Of the total expenditure public funds contributed 45·63 per cent., fees 27·47 per cent. and other sources 26·90 per cent., the percentages showing little variation from those of last year. Arts colleges claimed 7·73 per cent. of this outlay, professional colleges 1·45 per cent., general schools 57·42 per cent. and special schools 5·74 per cent. Excluding the figures relating to the Lawrence Asylum, Ootacamund, but

Receipts. including the expenditure on educational buildings, provincial receipts and charges amounted to Rs. 3,25,359 and Rs. 49,21,783 against Rs. 2,68,548 and Rs. 47,22,386 respectively in the preceding year. The increase in receipts was mainly due to the inclusion in the educational accounts of the sale-proceeds of the Industrial Schools and Weaving and Tanning Departments. The increase in charges was partly under grants-in-aid, and partly under inspection in consequence of the appointment of additional inspectors and the provincialization of the agency of supervisors of elementary schools, and was also partly due to the enhanced expenditure on

Sources. Government institutions. Of the total expenditure under the various heads of education, the percentages met from public and private funds were 43·97 and 56·03 respectively. Public funds contributed 15·16 per cent. to the expenditure on secondary education, 59·89 per cent. in the case of elementary and primary

Cost per head. education and 62·07 per cent. in the case of special education. The average cost of general education in public institutions for boys under the three heads, Government, board and aided schools was for arts colleges Rs. 331, Rs. 121 and Rs. 171; for secondary schools Rs. 60, Rs. 21 and Rs. 25; and for elementary and primary schools Rs. 11, Rs. 5 and Rs. 3, respectively. Receipts from fees rose from Rs. 32·66 lakhs

Grants-in-aid. to Rs. 33·32 lakhs. Grants-in-aid and other subventions from Provincial funds rose from Rs. 19·58 lakhs to Rs. 23·83 lakhs, of which Rs. 20·44 lakhs were granted to institutions under private management, Rs. 3·02 lakhs to local boards and Rs. 0·36 lakh to municipalities. Madras took 13·31 per cent. of the total, Malabar 8·92 per cent., Tinnevelly 7·38 per cent., Vizagapatam 5·33 per cent. and Madura 3·81 per cent. The lowest percentages were in the Nilgiris (1·91 per cent.) and in Anantapur (1·92 per cent.). Stipendiary grants from Provincial funds to training schools for masters and mistresses fell from Rs. 44,659 to Rs. 42,634. The amount of teaching grants from district board funds fell from Rs. 11,841 to Rs. 1,000; and from municipal

Quinquennial statistics. funds from Rs. 1,13,285 to Rs. 91,237. Comparing these figures with those of the last quinquennium the total expenditure has increased by 39 per cent. The amount met from each of the sources—Provincial funds, municipal funds, fees and private funds—has increased, while that from district funds has diminished considerably. The reason for this decrease is that since 1909 grants-in-aid to elementary schools in non-municipal areas, formerly paid through local boards, have been paid direct from Provincial funds, thus swelling the total under the latter head, which amounted to 79 per cent. in 1911–1912 as against 15 per cent. in 1906–1907. Since Government has accepted progressively larger responsibilities for education these figures must be expected to show an even more rapid expansion in the future. The total direct expenditure has increased by 33 per cent. in the quinquennium. There was an increase of expenditure from all sources except local and municipal funds, the decrease under this head being due to the reason stated. The total indirect expenditure has advanced to the present figure from Rs. 26·77 lakhs in 1907, the increase being shared by all heads except university and direction. The direct expenditure from provincial revenues on Government institutions increased by 14 per cent. in the quinquennium, the increase being distributed over all classes of institutions.

Collegiate Education

University. 801. In 1911 Government sanctioned the establishment of an honours course in Arabic language and literature similar to the course in Sanskrit language and literature. The first annual examination for the titles recently sanctioned in order to encourage the study of oriental languages and literature on modern critical methods will be held for the first time in 1915. New regulations embodying changes in the Intermediate and B.A. courses were sanctioned by Government during the year. The first Intermediate examination of students who had matriculated under the new school-leaving certificate scheme was held in March 1911 and 41·4 per cent. of the candidates passed. The result indicates that the increased stringency of the requirements in each subject taken up was counterbalanced by the reduction in the number of subjects. There was a great increase in the proportion

of candidates passing in the first class, which approached 30 per cent. whereas under the old regulations it never reached 10 per cent. During the year affiliation was for the first time granted for honours courses, to the Presidency, Christian and St. Joseph's (Trichinopoly) colleges in physics and in history and economics, to the two former also in natural science, mental and moral science and English and to the first also in chemistry and Sanskrit language and literature. A teachers' college opened by the Government of Travancore was also affiliated.

University examinations.

802. For the M.A. examination 58 candidates appeared and 27 passed. In the three divisions of the B.A. examination there were 3,729 candidates, of whom 2,317 passed. There were 1,575 candidates, of whom 686 passed, for the Intermediate examination. In Law there were examined for the degree of Masters of Laws 12 candidates of whom 1 passed, for the degree of Bachelor of Laws 316, of whom 81 passed, and for the First Examination in Law 486, of whom 189 passed. The Medical college and schools were transferred during the year from the control of the Educational Department to that of the Medical Department. In Engineering 8 out of 15 candidates passed the examination for the degree of Bachelor of Engineering (Civil or Mechanical) and 12 out of 53 candidates passed the First Examination in Engineering. Fifty-six out of 81 candidates passed the practical examination for the diploma of Licentiate in Teaching.

Arts Colleges.

803. There were 32 arts colleges during the year with an aggregate number of 4,939 students as compared with 3,741 students in 31 colleges in the preceding year. The rise in number is however abnormal and is due to the large number of admissions under the new regulations which permit principals of colleges to admit to a college course students whose school-leaving certificates show that they are fit for it. If the increase during the last year is left out of account, there has been a steady, though not a large, decline in the strength of the arts colleges during the last five years. This is accounted for by the fact that the period included two years of abnormal failure in the Matriculation examination and that these were not fully countervailed by a year of abnormal success and is no indication of any diminution of either the will or the power to pursue University studies. Ten colleges, with a strength of 3,483, were classed as first grade, of which 3 were under Government management and the rest aided. Of the 22 second-grade colleges, 1 was managed by Government, 3 by municipal councils, while 15 were classed as aided and 3 as unaided. The number of girl students rose from 32 to 46 and the number of students taking post-graduate courses also rose. The distribution of the students among the various courses has altered little except that there has been a steady increase in the numbers taking history and economics. During the last five years there has been a considerable strengthening of the staffs of the Government colleges, and additions have also been made to the staffs of aided colleges. The total expenditure on Arts colleges in 1911–1912 was Rs. 10,10,648 as against a yearly average for the quinquennium of Rs. 8,11,109. Fees amounted to Rs. 4,15,995.

Finance.

Secondary Education.

Examinations.

804. The working of the Secondary School-leaving Certificate Scheme continued to be satisfactory and both managers of schools and students appreciated the advantage of substituting a practical test of general fitness for the old fashioned limited Matriculation examination. The second examination under the scheme was held in March 1912 and 6,393 pupils were presented for it, of which number 2,111 sought to improve the certificate obtained in the preceding year. The scheme has been adopted by all high schools in the Presidency, and the entries for Matriculation fell in 1912 from eight or ten thousand to 580. The scheme, with or without modification, has been adopted in Haidarabad, Travancore, Cochin and Mysore. A practical defect of the scheme is that some schools tend somewhat to neglect subjects under Part B, for which a public examination is omitted as being either inadvisable in the interests of the pupils or of questionable utility as a test.

Schools.

805. The number of secondary schools fell slightly from 349 to 343 but their strength rose from 96,074 to 99,668, of whom 936 were girls. Five of the schools were under Government management, 21 were managed by municipalities, 63 by local boards and 1 by Sandūr State, while 234 were classified as aided and 19 as unaided. In the two latter classes 101 and 3 schools respectively were under mission management. The number of secondary school pupils was greatest in the districts of Tanjore (11,795), Madras (10,615), Malabar (9,011) and Tinnevelly (7,925). Four districts, Kurnool, Anantapur, Cuddapah and the Nilgiris had less than 1,000 pupils and three districts, Bellary, Nellore and Salem each had less than

Districts

2,000. Excluding Madras with a percentage of 27·50 the percentage of boys in secondary schools to the male population of school-age varied from 6·96 in Tanjore to 0·80 in Anantapur, the average figure for the Presidency being 3·24, which

Castes. exceeded the percentage in the case of 12 districts. Out of a total of 98,887 male pupils on the 31st March 1912, 44,571 were Brahmans, 39,237 were non-Brahman Caste Hindus, 9,013 were Indian Christians, 5,503 were Muhammadans and 256 were

Staff. Panchamas. The strength of the teaching staff rose from 4,250 to 4,294 of whom 1 per cent. held non-Indian diplomas, 66 per cent. professional certificates, 27 per cent. general education certificates, and 6 per cent. held no certificates. At the end of the year there were 310 drawing masters and 378 drill and gymnastic instructors.

Expenditure. 806. The total expenditure on secondary schools for boys rose from Rs. 23,68,077 to Rs. 24,41,066, of which Rs. 2,00,083 were provided from Provincial funds, Rs. 40,234 from local funds, Rs. 5,379 from municipal funds, Rs. 17,38,715 from fees and Rs. 4,56,655 from other sources. The average cost per pupil in non-European secondary schools for boys fell from Rs. 61 to Rs. 60 under Government management, and remained at practically the same figure (Rs. 21) under Local Board management, and in aided schools (Rs. 25). The average fee for boys per head in such schools was Rs. 23·00, Rs. 17·62 and Rs. 18·01, respectively. The proportion of fee income to direct expenditure fell from 72·05 to 66·78. The average fee paid by girls in all secondary schools rose from Rs. 4·92 to Rs. 5·75, the corresponding figures for boys falling from Rs. 17·82 to Rs. 16·88. A sum of

Scholarships. Rs. 43,375 was granted in scholarships from public funds and of Rs. 14,629 from private funds against Rs. 39,562 and Rs. 8,593 respectively in the preceding years.

Elementary Education. 807. The number of non-European elementary schools for boys rose from 23,593 to 24,034 and their strength from 887,688 to 940,084, of whom 115,696

Boys' schools. were girls. Lower elementary schools with standards below the fourth increased from 19,346 to 19,731 and their strength from 595,187 to 632,528, while Higher elementary schools with standards above the fourth increased from 174 to 188 and in strength from 21,756 to 25,049. Schools with standards up to the fourth

Management. increased from 4,073 to 4,115 and in strength from 270,745 to 282,507. Taking all three classes of elementary schools together 168 were under Government management, 312 were managed by municipalities, 4,079 by local boards, and 6 by Native States, while 15,184 were classed as aided and 4,285 as unaided. Of the schools under private management over one-fifth or nearly 22 per cent. were under missionary management.

Distribution. 808. The percentage of boys to the male population of school-age varied from 50·4 in Tinnevelly to 18·5 in Vizagapatam. The average percentage for the Presidency was 27·1 and those of the districts of Kurnool, Coimbatore, Salem, Nellore, Anantapur, Trichinopoly and Vizagapatam fell below it in the order named. Dividing villages into four groups having (i) less than 200 inhabitants, (ii) between 200 and 500, (iii) between 500 and 1,000, and (iv) between 1,000 and 2,000, the percentage of villages of each class provided with one or more public or private schools was 2, 24, 52 and 76, respectively. There were 269 villages with a population of over 2,000 unprovided with schools.

Staff and accommodation. 809. There were 38,773 teachers during the year against 37,825 in the preceding year. Of these 1 held a non-Indian diploma, 12,955 professional certificates, 20,748 general education certificates and 5,069 were without certificates. Of the total number of 24,034 schools, 9,762 had buildings of their own, 6,615 were held in rented buildings, 4,735 in chavadies, choultries, etc., and 2,922 in the houses of the manager or headmaster. The corresponding figures for the previous year were 9,731, 5,770, 5161, and 2,931, respectively.

Night schools. 810. There were 466 night schools against 567 in the previous year and their total strength fell from 11,096 to 9,784. Of these schools 20 were under local board management, 324 were aided and 122 unaided.

Expenditure. 811. The total expenditure on elementary education for boys rose from Rs. 35,93,171 to 37,55,272. Of this amount Rs. 11,00,130 were provided from Provincial funds, Rs. 9,94,364 from local board funds, Rs. 2,18,596 from municipal funds, Rs. 6,99,796 from fees and Rs. 7,42,386 from other sources. Of the total expenditure, Rs. 95,897 were spent on Government schools, Rs. 12,85,209 on board schools, Rs. 21,35,668 on aided schools, Rs. 2,38,111 on unaided schools and

Rs. 387 on schools in Native States. The average cost per pupil in non-European elementary schools for boys was Rs. 11-7-1, Rs. 5-6-9 and Rs. 3-13-5 for Government, board and aided schools, while the average fee per head was Re. 0·65, Re. 0·55 and Re. 0·78 respectively. The variations from standard averages were insignificant. The proportion of fees collected to direct expenditure was 22·32 per cent. against 20·94 per cent. in the preceding year. The amounts of scholarships granted from public and private funds were Rs. 15,053 and Rs. 1,528, respectively, against Rs. 16,346 and Rs. 984 in the preceding year. Fees.

812. There were 182 special schools during the year against 176 in the preceding year. Of these 85 were training schools for masters and mistresses, 4 were medical schools and 93 technical, industrial or art schools. Special Education.

813. The number of training schools for masters remained stationary at 46, while the total number of students increased from 2,371 to 2,552. Of these the largest number were under training in the districts of Gōdāvari (257), Guntūr (201), Malabar (199), North Arcot (172), Tinnevelly (153) and Ganjām (150). Of the total number 867 were Brahmans, 818 non-Brahman Caste Hindus, 605 Indian Christians, 158 Muhammadans and 93 Panchamas. The strength of the teaching staff rose from 167 to 170, and of these 160 held professional certificates, 29 being collegiate, 100 secondary and 31 elementary. The total expenditure rose from Rs. 3,03,157 to Rs. 3,12,880 of which sum Rs. 2,54,980 were provided from Provincial funds, Rs. 29,275 from local funds, Rs. 1,113 from municipal funds, Rs. 858 from fees and Rs. 26,654 from other sources. Training schools for masters.

814. The number of training schools for mistresses rose from 20 to 21 and their total strength from 380 to 444, the largest numbers being in the districts of Madras (110), Tinnevelly (58) and Guntūr (47). There were 34 in Gōdāvari against 14 in the previous year. Of the total number of mistresses 336 were Indian Christians, 42 Europeans and Eurasians, 36 non-Brahman Caste Hindus, 20 Muhammadans, 5 Panchamas and 3 Brahmans. The teaching staff numbered 67 against 58 in 1910–1911. Fifty-four of these held professional certificates, 8 being collegiate, 37 secondary and 9 elementary. The total expenditure rose from Rs. 85,021 to Rs. 87,987. Of this amount Rs. 69,255 were provided from Provincial funds, Rs. 165 from fees and Rs. 18,567 from other sources. Training schools for mistresses.

815. At the *preliminary* examination for teachers' certificates 162 candidates appeared for the secondary grade and 1,967 for the elementary grade and of these 160 and 791, respectively, passed. Among those who passed were 20 women in the secondary grade and 106 in the elementary grade against 17 and 277 in the preceding year. At the *final* examination 104 candidates appeared for the secondary grade and 900 for the elementary grade and 21 and 400, respectively, passed. Sixty-one of the last number were women. The percentage of success both in the final and preliminary examinations throughout the quinquennium remained at the level of about 70 and 65 for the secondary and elementary grades, respectively. Teachers' examinations.

816. Sessional schools were held in all districts except Chittoor, Gōdāvari, South Canara, Madras, Malabar, the Nilgiris and Rāmnād and the number at work rose from 45 to 47. The number of teachers admitted rose from 607 to 696 and the number who completed the course from 547 to 651. Sessional schools.

817. Medical schools were 4 in number as in the preceding year. The total expenditure during the year was Rs. 64,877. This amount, which does not include the expenditure on Native military pupils, was met from Provincial funds. In 1911 the control of medical schools was transferred from the Director of Public Instruction to the Surgeon-General. Medical schools.

818. The number of higher-class technical schools teaching subjects coming under two or more groups of the Technical Examination scheme rose from 5 to 7 and the total number of pupils from 794 to 982. The number of higher-class technical schools teaching subjects coming under only one group of the examination scheme rose from 39 to 41, the number of pupils increasing from 1,212 to 1312, of whom 21 were studying electrical engineering, 86 music, 183 drawing and 1,072 commerce. There were 33 schools of commerce, 6 schools of art and 2 schools teaching electrical engineering. There were 2 lower-class technical schools against 3 in 1910–1911. The total number of pupils in technical schools rose from 2,095 to 2,364. Of this number 1,014 were Brahmans, 867 non-Brahman Caste Hindus, 201 Technical schools.

Indian Christians, 121 Europeans and Eurasians, 107 Muhammadans, 50 Panchamas and 4 Buddhists.

Industrial schools.

819. Industrial schools were classed under three heads as in the case of technical schools. There were 12 schools of the higher-class teaching subjects coming under two or more groups of the technical examination scheme with a strength of 985 students against 14 schools with a strength of 1,098 in the previous year. As in the preceding year there were 16 schools under the second group of higher-class schools; the total strength of these schools, however, fell from 650 to 633. Of these 2 taught woodwork, 1 agriculture, 3 printing, 1 tailoring and dressmaking and 9 textile industries. Of the total number of 2,062 pupils in industrial schools, 1,266 were Indian Christians, 400 non-Brahman Caste Hindus, 233 Muhammadans, 104 Europeans and Eurasians, 47 Brahmans and 12 Panchamas.

Expenditure on technical and industrial schools.

820. The total expenditure on technical and industrial schools rose from Rs. 1,85,037 to Rs. 2,23,501. Of this amount Rs. 33,527 were provided from Provincial funds, Rs. 3,789 from fees and Rs. 1,86,185 from other sources.

Female Education.

General Statistics.

821. There was a further increase in the number and strength of schools intended for the education of non-European girls, the number of schools, both public and private, increasing from 1,297 to 1,357 and their strength from 91,044 to 98,053, while the total number of girls under instruction in all classes of non-European schools rose from 204,386 to 223,012. Of the 1,230 non-European public schools for girls 190 were maintained by Government, 17 by municipal councils, 94 by local boards and 1 by a Native State; 803 were aided and 125 unaided. The number of girls reading in non-European boys' schools was 130,052 or 58 per cent. of the total number under instruction. The average percentage of girls under instruction to the total female population of school age was 7·1. This average was exceeded in nine districts, viz., Madras (33·2), the Nilgiris (14·6), Tinnevelly (13·8), Malabar (13·6), Kistna (13·5), Gōdāvari (11·3), Guntūr (10·9), Tanjore (8·1) and South Canara (8·0).

Collegiate education.

822. The Palamcottah Sarah Tucker College was the only Arts College in the Presidency intended for Indian women, and its strength rose from 2 to 8. There were besides 30 female students studying in non-European colleges intended for men—18 in the Presidency College, Madras, 6 in the Basel German Mission College, Calicut, 3 in the Government College, Mangalore, 2 in the Brennen College, Tellicherry, and 1 in the Wesley College, Madras. The U.F.C.M. College, Madras, though not affiliated to the University, also teaches girls up to the intermediate standard. Its strength during the year was 7.

Secondary education.

823. The number of public secondary schools for girls increased from 32 to 35 and their total strength from 3,994 to 4,714. Three of these schools were under Government management and 31 under mission management. Of the total number of pupils, 3,365 were Indian Christians, 992 non-Brahman Caste Hindus, 231 Brahmans, 85 Europeans and Eurasians, 23 Panchamas and 6 Muhammadans.

Elementary education.

824. The number of elementary schools for non-European girls rose from 1,075 to 1,152 and the number of pupils in them from 80,748 to 87,916. The number of schools with standards above the fourth rose from 186 to 232 and of these 85 were Government and 111 mission schools. Schools with standards up to and including the fourth fell from 462 to 454, of which 72 were under Government and 276 under mission management. Of the total number of girls in public elementary schools, 106,395 were non-Brahman Caste Hindus, 34,722 Brahmans, 30,414 Indian Christians, 16,894 Muhammadans, 10,395 Panchamas and 48 Europeans and Eurasians. The average percentage of pupils to the total population of girls of school-age was 6·3, and was exceeded in Madras (27·5), the Nilgiris (13·2), Kistna (13·0), Tinnevelly (12·0), Gōdāvari (11·1), Malabar (10·7) and Guntūr (10·6). The average was below 4 per cent. in Anantapur (3·6), Trichinopoly (3·6), Vizagapatam (3·5), Ganjām (3·3) and Bellary (3·2).

Zenana agencies.

825. The number of zenana agencies at work (4) was the same as in the preceding year, while the number of pupils fell from 123 to 109. One secondary school with 37 pupils was maintained by the Madras United Free Church Mission at Madras and three elementary schools at Madras, Cuddalore and Coimbatore by the National Indian Association.

826. The total strength of the teaching staff in non-European secondary and elementary girls' schools rose from 3,944 to 4,147. Of this number 41 held non-Indian diplomas, 2,592 professional certificates and 1,206 general educational certificates. A large majority of the certificates were of the elementary grade. Staff.

827. The total expenditure on girls' schools rose from Rs. 7,75,248 to Rs. 8,09,466. Of this sum, Rs. 3,31,115 were provided from Provincial funds, Rs. 16,558 from local funds, Rs. 37,416 from municipal funds, Rs. 59,888 from fees and Rs. 3,64,489 from other sources. Expenditure.

828. The total number of institutions fell from 86 to 85 and comprised 1 arts college for men, 32 secondary schools for boys, 30 secondary schools for girls, 10 primary schools for boys and 10 for girls and 2 special schools for girls. There were 617 boys and 206 girls in 16 railway schools. The total number of scholars in public schools rose from 7,002 to 7,469. Of the 85 public schools, 2 were Government schools, 82 were aided and 1 unaided. **European Education.** Schools.

829. The total number of teachers and the proportion of more highly qualified teachers have fallen somewhat since 1906–1907 though not in proportion to the fall in the number of schools. There were 581 teachers employed in European schools during 1911–1912. Of these, 79 held non-Indian diplomas, 333 professional certificates and 136 general educational certificates. Staff.

830. The results of examinations held under the Code of Regulations for European Schools, though small, show some improvement. Thirty-three out of the 86 candidates who appeared for the High School and Scholarship examination passed. One hundred and fifty appeared for the Middle School examination and 97 passed, while 30 out of 56 passed the Primary Scholarship examination. Examinations.

831. The expenditure on European schools rose from Rs. 9,22,767 to Rs. 10,16,530. Of this amount Rs. 3,40,387 or 33·48 per cent. was provided from Provincial funds, Rs. 1,70,541 or 16·78 per cent. from fees and Rs. 5,05,602 or 49·74 per cent. from other sources. Finance.

832. The total number of Muhammadan pupils in all schools rose from 113,022 to 117,288 in the case of boys and decreased from 29,127 to 28,908 in the case of girls. The average percentage of pupils to the total population of school-age, however, fell from 62·2 to 57·8 in the case of boys and from 15·6 to 13·9 in the case of girls. The number of Muhammadans in arts colleges, professional colleges and secondary schools was 96, 7 and 5,507 against 59, 9 and 5,507 respectively in the preceding year. There was 1 girl in an arts college for non-Europeans; there were 4 in non-European secondary schools and 6 in European secondary schools. The number of schools intended chiefly for Muhammadans, both public and private, rose from 1,994 to 2,291 and their total strength from 95,767 to 109,039. Of the 1,195 public schools, 60 were under Government management, 520 under Local Boards, while 501 were aided and 114 unaided. With the exception of 4 secondary schools and 6 special schools all of these were elementary schools. There were 338 public and 368 private schools for Mappilla boys against 341 and 383 in the previous year and their total strength rose from 38,583 to 38,658. The number of public schools for Mappilla girls fell from 18 to 17 and their strength from 1,268 to 1,006. The total expenditure on Muhammadan schools rose from Rs. 3,95,147 to Rs. 4,84,403. Of this amount, Rs. 2,98,115 were provided from public funds, Rs. 56,322 from fees and Rs. 1,29,966 from other sources. **Education of Muhammadans.** General statistics. Mappillas. Finance.

833. The total number of Panchamas under instruction in public schools rose from 68,240 to 72,190, of whom 10,433 were girls. The number of schools, both public and private, chiefly intended for Panchamas fell from 3,936 to 3,781 and their strength from 101,748 to 100,881. Of these, 9 were Government schools, 439 board schools, 2,582 were aided, 697 unaided and 54 private institutions. The total expenditure on Panchama schools rose from Rs. 5,51,464 to Rs. 6,07,775. Of this amount Rs. 2,63,072 were provided from public funds, Rs. 17,392 from fees and Rs. 3,27,311 from other sources. **Education of Panchamas.** Finance.

834. There were 5,367 boys and 263 girls belonging to aboriginal and hill tribes under instruction in all classes and grades of schools during the year against 4,464 boys and 175 girls in 1910–1911. Of these the total number under instruction in the Agencies of Ganjām, Gōdāvari and Vizagapatam was 4,760 against 4,006 in the preceding year. The total expenditure on these schools rose from Rs. 48,107 **Aboriginal and Hill Tribes.**

to Rs. 50,260, of which Rs. 42,464 were contributed from Provincial funds, Rs. 5,369 from local funds, Rs. 939 from fees and Rs. 1,488 from other sources.

Private Institutions. 335. The number of private institutions fell from 5,291 to 5,193 and their total strength from 128,163 to 127,179 pupils, 110,011 of whom were boys. Of the total number of schools, 364 were secondary schools for boys and 9 secondary schools for girls: 104 of these schools taught Arabic or Persian and 264 Sanskrit. There were 4,702 elementary schools for boys and 118 for girls; 834 and 104 of these were Quran schools and 3,069 and 14 vernacular schools. Tanjore and Madura districts had more than 50 Sanskrit schools each. Two hundred and ninety-two of the 834 Quran schools for boys and 75 of the 104 Arabic or Persian schools were in Malabar. There were more than a hundred Quran schools in both Tanjore and Tinnevelly. A scheme for the better aiding and administration of Sanskrit schools was sanctioned by Government towards the close of the year.

Secondary schools.

Elementary schools.

Text-books. 336. The Text-Book Committee considered 651 books during the year and found 489 suitable for use in schools.

Physical Education. 337. The number of institutions in which gymnastics was taught according to the Educational Rules was 15,561 against 14,772 in the preceding year and the number in which native gymnastics was taught rose from 5,908 to 6,000. There were 4,298 institutions out of a total of 25,859 in which no physical education was given.

Hostels. 338. There were 202 hostels for boys and 119 for girls against 198 and 105 respectively in 1910–1911. There were in all 15,227 inmates (9,362 boys and 5,865 girls), nearly two-thirds of this number being Indian Christians.

MISCELLANEOUS. (1911-1912.)

Government Examinations. 839. The total number of individual candidates registered for the three grades of examination was 8,501, of whom 279 were for the Advanced, 2,242 for the Intermediate and 5,980 for the Elementary grade. There was an increase in the numbers registered for all three grades. Of 10,704 subject-candidates examined 4,392 passed, and the total percentage of subject-passes rose from 37·8 to 41·0. Two of the subject-candidates for the Advanced, 49 for the Intermediate and 165 for the Elementary grade were females. Of these, 2, 31 and 76 were successful in the respective grades. Brahmans and non-Brahman Caste Hindus formed the bulk of the subject-candidates who passed in the case of all three grades. Commerce continued to attract the largest number of candidates. Five diplomas, of which two were for drawing, and 110 group certificates, among which there were 18 for shorthand, were granted during the year. Twenty-six applications were received for 20 vacancies in the grade of Civil Medical Pupil. There were 12 vacancies in each of the grades of Native Military Pupil and Madras-Burma Sub-Assistant Surgeon Pupil, for which there were 36 candidates in the former and 15 in the latter case. For the Special Test examinations 4,775 candidates registered their names, 3,782 appeared for examination and 1,397 passed. The percentage of passes, except in the lower grade of the Translation, Account and Criminal Judicial Tests and in the higher grade of the Criminal Procedure Code was lower than in 1910–1911 and in the Prēcis-writing Test only 25 candidates passed out of 206 examined. The total receipts were Rs. 1,60,139 while the expenditure was Rs. 1,20,696.

Technical examinations.

Subordinate Medical Department.

Special Tests.

Finance.

Lawrence Asylum. (1911.) 840. On the 31st December there were on the rolls 300 boys and 159 girls, of whom 10 boys and 6 girls were day-scholars. There were 175 children (112 boys and 63 girls) registered for admission, of whom 75 boys and 35 girls were the children of soldiers serving or having served in the British Army in India. Of the 51 boys who left during the year, 10 entered the Government Telegraph Department, 7 enlisted in European regiments, 4 passed the entrance examination for the Indian Subordinate Medical Department, 1 entered the Engineering College, Madras, and 1 joined the South Indian Railway. There was no difficulty in obtaining employment for boys who were of good character and were both mentally and physically of average standard. The majority of the 36 girls who left were claimed by their parents or guardians; one left to undergo a course of training as a hospital nurse

Strength.

and one obtained employment as a typist in the Oriental Telephone Company. In the Government examinations for European Schools, held in December 1911, 8 boys were presented for the High School examination, 10 boys and 8 girls for the Middle School, and 4 boys for the Primary Scholarship examination. Of these, 1 boy passed the High School examination, 5 boys and 7 girls passed the Middle School, and 1 boy passed the Primary Scholarship examination. Telegraphy, type-writing, drawing and music continued to be taught and drill, games and gymnastics were carried on regularly. The number of staff and cadets on the rolls of 'D' and 'G' companies of the Nilgiri Volunteer Rifles on 31st December 1911 was 192. There were 4 deaths during the year from various causes, and there was an epidemic of chicken pox in a mild form in July and August. Special attention was paid to the eyesight of the children by the Resident Medical Officer and several were fitted with glasses. The total receipts of the year, including the Government grant of Rs. 48,000, were Rs. 1,86,847, the profit on Asylum property amounting in the aggregate to Rs. 59,123. The total average cost was Rs. 352 for a boy and Rs. 312 for a girl.

Education.

Health.

Finance.

841. The Reformatory School, Chingleput, continued to be worked on the lines described in previous years. The strength of the school was 246 against 240 in 1910–1911. Forty-six pupils were discharged during the year and of these 31 or 67 per cent. obtained employment. The general health of the pupils was good throughout the year. A modification of the working arrangements was tried by which the boys work to some extent in shifts, one being in school while the other is in the workshops. The scheme was found to work satisfactorily and has the advantage of reducing the number under one teacher or instructor. The trades taught are carpentry, blacksmiths' and metal work, weaving, tailoring, band-playing, masons' work and rattan-work, the last having been recently revived as being a useful adjunct to carpentry. Little difficulty is experienced in finding employment for the boys when they leave. Great attention is given to moral and physical training and the school is more successful in leaving a definite impress on the boys who pass through it than many of much higher pretensions. The excellence of its tone is indicated by the fact that the whole school was taken in 1911 into camp for a Christmas trip to the Seven Pagodas. The experiment, the first of its kind and one not altogether unattended with risk, was completely successful. His Excellency the Governor visited the camp and recorded his appreciation of what he saw.

Reformatory School.

842. The number of pupils on the rolls on the 31st March 1912 was 367 (of whom 23 were females) against 429 in 1911 and 368 in 1910. The average daily attendance was 252 as compared with 375 in the preceding year. The number of scholarship-holders rose from 44 to 56. In the Government Technical examinations 168 students appeared and 115 passed. The largest class was, as before, the engraving class, next in order of numbers came the lacquer-work, wood-work and jewellery classes. Thirty-one pupils of the school left for various employments during the year. The general aim of the school has been to develop and foster the Indian spirit in design, and to counteract the tendency to mere imitation of European models in which a measure of technical perfection might be reached but the special artistic value of Indian work would be lost. The amount realized by sales of manufactured articles fell from Rs. 5,653 to Rs. 4,834. The total cost of the school was Rs. 49,061. The fees from the drawing class amounted to Rs. 108. No fees were levied in the other classes.

School of Arts, Madras.

Industrial classes.

LITERATURE AND THE PRESS. (1911–1912.)

[*Statistics of British India, Part II—Educational.*]

843. The total number of readers during the year was 18,374 against 19,234 in 1910–1911. Excluding works of general reference, the most popular subjects were, in the order named, belles-lettres, history, religion and arts and industries, under each of which heads there were over 1,000 issues. The number of standard works

Connemara Public Library.

added to the library was 291, of which 261 were purchased and the rest presented. Six old prints were acquired and are exhibited in the library, and the supply of 14 periodicals not previously taken has been sanctioned.

Periodicals. (1911.)

844. The total number of newspapers and periodicals published during the year in the Madras Presidency (including the Native States and French territory) was 387 as against 385 in the preceding year. The number of daily papers was nine comprising five published in English at Madras, two in English at Bangalore, one in Urdu at Haidarabad and one in Tamil at Madras. Ninety-five periodicals were published weekly, bi-weekly or tri-weekly. Of journals published in one language only, 90 were in English, 74 in Tamil, 66 in Malayalam, 49 in Telugu, 26 in Canarese, 26 in Urdu, 5 in Sanskrit, 4 in French, 3 in Uriya and one each in Italian and Portuguese. Journals which combined a vernacular with English were Tamil (9), Malayalam (7), Telugu (5), Canarese (3), Tamil and Urdu (2) and Gujarati (1). Five journals combined Sanskrit and Canarese. As might be expected Madras was the centre of journalism, especially of Tamil journalism, for the Presidency; while a certain number of Tamil periodicals were published at Tanjore, Trichinopoly, Madura and Tinnevelly. Telugu publications were practically confined to Gōdāvari, Kistna, Guntūr and Madras; while Urdu periodicals were divided between Haidarabad, Madras and Mysore. The greater number of the Malayalam periodicals came from Travancore State; Canarese journals were published chiefly in Mysore State and South Canara. The number of newspapers and periodicals at the end of the year dealing with current politics rose from 63 to 85. Of this number 20 were newly started during the year, and 19 papers previously of a non-political character began to deal with politics as a new feature. Seventeen newspapers and periodicals ceased to exist. Of the total number published 33 were published in the City of Madras, 36 in the mufassal, 22 in the Native States of Haidarabad, Mysore, Travancore and Cochin and 11 in the French territories of Pondicherry and Karikal. Twenty-nine were in English, 23 in Tamil, 12 in Malayalam, 10 in Telugu, 7 in Urdu, 6 in Canarese and 10 were bi-lingual or tri-lingual publications. The tone of the press in the Presidency was, on the whole, sane and moderate, and no newspaper or periodical was called on to furnish security under the Press Act. Action under section 12 (1) of the Act was taken in respect of only one Tamil newspaper published in the French territory of Karikal; the paper has since ceased publication.

Politics.

Registration of Books. (1911.)

845. The number of books published during 1911 was 2,354 and of periodicals 1,368 as against 2,364 and 1,095 in 1910. The total number (3,722) of works presented for registration was the largest on record since the enforcement of the Books Registration Act, XXV of 1867. Of the total number 3,543 were original works, 75 were republications and 104 were translations. The figures show an appreciable increase under original works, chiefly in English and other European languages and in the vernacular languages spoken in the province, and a decrease under translations. Classified by languages, 1,142 publications were in Tamil, 1,075 in English, 754 in Telugu, 320 in Sanskrit, 140 in Malayalam, 113 in Canarese, 72 in Arabic, 42 in Hindustani, 37 in Uriya and 6 in Persian. An increase was noticeable in the number of works published under English, Tamil, Telugu, Canarese, Hindustani, Arabic and Persian, and a decrease in the number published under Malayalam and Sanskrit. A publication entitled "A grammar of the Kuvi language," which is a language spoken by certain tribes in the Agency tracts of the Vizagapatam district, deserves to be noticed. Classified by subject-matter, 1,384 publications dealt with religion, 281 with law, 236 with language, 199 with poetry and 96 with the drama. There was an increase under all heads during the year except under art, drama, history, language, law and science. Nine works dealt with politics as against 3 in the preceding year. The number of works designed for educational purposes was 418, or a little more than 11 per cent. of the total. The number of copyright registrations rose from 638 to 643. There were two cases of prosecution for violation of the Books Registration Act.

LITERARY SOCIETIES.

Introduction.

846. Excluding sectarian institutions and associations such as missionary, theosophical, Brahmo Samaj and similar societies which are mainly intended to advance the interests of particular religionists or of particular classes of individuals, there were on the returns of the Educational Department for last year 1,368 scientific and literary societies, reading-rooms and teachers' associations. The total number of members or visitors connected with these societies included 75,351 adult males, 1,717 adult females and 13,409 juveniles. The gross income during the year amounted to Rs. 99,102, of which Rs. 2,116 were met from public funds, Rs. 7,964 from endowments and Rs. 89,022 from donations and subscriptions.

Government Oriental Manuscripts Library.

847. Three collections of manuscripts, viz., (1) the vernacular manuscripts and the local tracts and copies of inscriptions belonging to the Mackenzie collection, (2) the East India House collection, and (3) the manuscripts collected by the Telugu Scholar Mr. C. P. Brown which were all in an outhouse attached to the Old College, Nungambaukum, under the care of the Director of Public Instruction formed the nucleus of what is now the Government Oriental Manuscripts Library. They were transferred in 1869 to the charge of Mr. Pickford, then Professor of Sanskrit in the Presidency College, who was directed to look after the manuscripts and to prepare a catalogue of them to facilitate their identification and their accessibility to the public. The Professor of Sanskrit thus became the librarian of this institution and had the assistance of a clerk to carry on the work connected therewith. In 1875 he became the curator of the library and was given an allowance of Rs. 100 per mensem. He was then called upon to prepare for publication important literary and historical manuscripts; and in 1876, in accordance with the orders of the Government of India of the year 1868, he was required to discover new manuscripts in the Presidency and to purchase them or acquire them by transcription. In pursuance of these orders many manuscripts have been acquired and the total collection is now classified as follows:—

Sanskrit		14,535
Telugu		3,284
Tamil		2,217
Canarese		1,097
Malayalam		125
Marathi		368
Uriya		43
Arabic		176
Persian		620
Hindustani		59
Miscellaneous	Javanese / Singhalese	198
Local tracts		3,829
	Total	26,551

The following publications have also been issued in execution of these orders:—

(1) List of manuscripts in the private libraries of Southern India, volumes I and II, with an index containing the names of about 19,000 manuscripts.
(2) Index of the 62 volumes of local records.
(3) Sukranītisāra.
(4) Report on the search for Sanskrit and Tamil manuscripts for the years 1896–1897 and 1893–1894, two volumes.
(5) Alphabetical index of manuscripts in the Government Oriental Manuscripts Library, Madras.

848. Tours in search of manuscripts were also made between the years 1883 and 1886; and 58,600 manuscripts belonging to private libraries were catalogued. In the year 1886 the duty of searching for manuscripts which carried an annual grant of Rs. 3,000 was transferred to the Government Epigraphist and an annual grant of Rs. 600 was sanctioned to the library for acquiring and transcribing manuscripts and for preserving them. A descriptive catalogue of the Sanskrit manuscripts has been prepared and is now in the press; 5,891 pages of this catalogue have been printed, of which 4,328 pages containing a description of 5,558 works have been published in eleven volumes. Of the Tamil descriptive catalogue 611 pages have been printed and the first volume of 486

pages is ready for issue. A descriptive catalogue of the Telugu manuscripts is nearing completion. In 1904 the annual grant of Rs. 600 was raised to Rs. 2,200, thus making available larger amounts for acquisition, transcription and preservation of manuscripts. A portion of the amount was also set apart for the purchase of printed books of reference and for preparing manuscripts of rare works for publication. Thus, in addition to the routine work of the library, the curator was able to bring about the publication of the Sarvasiddhāntasangraha of Śaṅkarāchārya (with English translation), a rare work on the various philosophical systems of India. Ganitasārasaṅgraha of Mahāvīrāchārya, a rare mathematical work of historical importance, has also been printed and published with an English translation and notes. Between the years 1902 and 1912, 4,940 manuscripts were acquired. The number of visitors who consulted the library during this period has been 1,741 a year on an average and, in 1911–1912, 3,120 manuscripts were consulted by them. Arrangements are made to supply copies of manuscripts to scholars at their own expense. The manuscripts are systematically dusted and oiled.

849. The library was removed from the Old College to the Presidency College in 1870, thence to the secretariat buildings in the Fort in 1890 and lastly in 1896 to the museum buildings where it is now located. This building was found to be unsuitable and insufficient to accommodate the staff and visitors; and a proposal to provide a more suitable building for the library is under consideration. The curator's monthly allowance of Rs. 100 was discontinued after the retirement of Dr. Oppert in 1893. As the staff of the library was found to be inadequate to cope with the work which was gradually increasing, it was reorganized in 1910 and the number of members was increased from three to nine. The staff of the library, as it stands now, consists of the curator, the librarian, the assistant librarian, two pandits, one clerk, three copyists, one attender and three peons.

Government Museum.

850. The policy governing the management of the Government Museum during the last three decades has been to render it a popular index or illustrated guide to the natural history (animal, vegetable and mineral), arts, archæology, ethnology and economic resources of Southern India. That it is popular is shown by the fact that it is visited by about 400,000 persons annually. The museum buildings consist of two sections, the old and new buildings, of which the latter, with the connected Connemara Public Library, was opened to the public in 1896. The new building also includes a theatre capable of holding more than 400 people with a stage adapted for the purposes of lectures, conferences and entertainments.

851. The old building is devoted to the natural history, archæological and economic sections. Very much appreciated is a small vivarium, wherein are exhibited series of snakes, smaller mammals, and birds with photographs, pictures and specimens illustrating their life history. The most conspicuous exhibits in the animal section are the skeleton of the great Indian whale which was washed ashore near Mangalore and measures 48 feet in length and the skeleton of a solitary male elephant which was shot in South Arcot and stands about 10′ 6″ at the shoulder. In the archæological gallery are set up the beautiful sculptured marbles from the railing of the Buddhist stupa at Amarāvati in the Guntūr district, which dates back to the latter end of the second century A.D.; and a valuable relic is a fragment of bone contained within a rock-crystal casket from Bhattiprolu also in the Guntūr district which was enclosed in an outer stone casket inscribed with a legend stating that it was made in order to deposit therein some relics of Buddha. The relic probably dates back to 200 B.C. or earlier. In addition to several galleries devoted to the illustration of the fine and industrial arts and ethnology of Southern India the new building contains the fine historic collection of arms and armour which was formerly deposited in the arsenal at Fort St. George and the splendid series of arms from the old Tanjore Palace armoury; also a valuable collection of prehistoric and proto-historic antiquities including the Breeks' collection of pottery from the cairns and barrows of the Nilgiri hills; the collection of bronze, iron weapons and implements, pottery and human bones excavated under the direction of Mr. A. Rea, Superintendent of the Archæological Survey, at Aditanallur in the Tinnevelly district; and the collection acquired by purchase of paleolithic and neolithic celts, hammers, mealing stones, scrapers, coins, bangles, beads and other articles collected in the course of his long service by Mr. R. Bruce-Foote, late of the Geological Survey of India. There is also a large numismatic collection which is specially rich in coins of the various native dynasties of Southern India, and of the various European companies—English, Dutch, French, Portuguese and Danish.

852. The Marine Aquarium on the Madras Marina, the first institution of its kind in India, was opened to the public in 1909. In spite of a small admission fee charged to prevent overcrowding, the institution has been very popular, more than 100,000 persons visiting it annually. **Marine Auqarium.**

853. The Connemara Public Library contains about 15,000 standard works, in addition to a large series of Government publications, periodicals, journals of societies, calendars of state papers, etc., and is resorted to by about 17,500 readers annually. **Connemara Public Library.**

854. The museum, the library and the aquarium are open to the public every day except on Fridays. The cost of the upkeep of the museum and library in 1911–1912 was Rs. 34,723 and that of the aquarium Rs. 3,305.

855. There are in the Presidency 1,368 societies which may be classed as literary. The most important of them are the following :— **Literary Societies.**

(1) The Madras Literary Society and Auxiliary of the Royal Asiatic Society, (2) The Madras Progressive Union, (3) The Muhammadan Public Library, (4) The Madras Teachers' Guild, (5) The Victoria Edward Hall, Madura, a large literary society, (6) The Nilgiri Library, Ootacamund, (7) The Coonoor Library and (8) The Vannia Kula Kshatriya Mahasangam, Madras, the object of which is the education of children of the Vannia caste.

856. The remaining societies are mostly either teachers' associations or mufassal reading-rooms which are institutions discharging the ordinary functions of a club. These institutions, although of very great cumulative utility, are individually small and need not be particularized here, as publications like the Lawrence Asylum Press Almanack contain information about them.

ARTS AND SCIENCES. (1911–1912.)

857. The total number of visitors to the old and new buildings fell from 882,821 to 662,631. The number of gosha ladies visiting the museum also fell from 12,356 to 10,818. The decrease in the number of visitors cannot be accounted for, but the number of persons who visit a public institution like a museum depends on a variety of causes and naturally fluctuates from year to year. **Government Museum**

858. The construction of a new office for clerks has been taken in hand and, as soon as this is finished, the existing office building will be demolished to make room for the extension of the sculpture and economic galleries. **Buildings.**

859. An old wooden door of massive construction and primitive design has been sent to the museum from the ruined fort at Anjengo, one of the earliest English settlements in India. **Historical section.**

860. The collection of South Indian bronze images has been completely arranged in the course of the year. This collection, which has a European reputation, is pronounced by competent judges to be the finest in existence. Among the more important additions to this section were three sets of copper plates and various stone and bronze images acquired under the Indian Treasure Trove Act. **Archæology and art.**

861. Under the Treasure Trove Act there were acquired during the year 101 *varahas* or pagodas and 225 half-pagodas found in the South Canara district. They belong to the Vijayanagara dynasty. Seven "Lingayat" pagodas from North Arcot, 6 Venetian sequins from Malabar, 4 gold fanams from Nellore, 1 Porto Novo pagoda or *poovarahan* from Chingleput and 2 Roman silver denarii from Coimbatore were also acquired. Numerous coins found during the course of excavations in the buried city of Periapatnam in the Rāmnād district were received from the Archæological Department. They are referable to the Chola, Pandya, Vijayanagara and Sētupati dynasties. Three inscribed Andhra lead coins in an unusually good state of preservation and 8 copper coins belonging to the Eastern Chalukya dynasty were received from the Collector of Gōdāvari. Other coins were presented or purchased. **Numismatics.**

862. A number of specimens were collected by the Superintendent of the Government Museum in the course of a tour in the Cochin State, during which two new species of animal, a tortoise and a fresh-water crab, were discovered. The first specimens of Swinhoe's snipe (*Gallinago megala*) recorded from peninsular India, all shot in the Chingleput district, have been added to the collection. Other additions **Natural history.**

comprise various birds new to the collection from the Cochin State Forests, and the skull and part of the dorsal shield of a leathery turtle (*Dermochelys coracea*) the largest and rarest of the marine turtles, and one for which there is no previous record from the Coromandel coast. The specimen was caught on the coast of the Guntūr district.

Marine Aquarium.

863. The total number of visitors to the Aquarium during the year, and the amount realised in entrance fees, were 124,966 and Rs. 4,654 against 143,897 and Rs. 5,223 in the preceding year. A popular guide to the Aquarium at the price of one anna a copy was issued and the first edition of 500 copies was exhausted before the end of the year. A fine specimen of the Hawksbill turtle (*Chelone imbricata*) from which the tortoise-shell of commerce is obtained was procured from Tuticorin. Two serious outbreaks of disease occurred among the fish in the latter half of the year, causing considerable loss. Bacteriological examination disclosed the existence in large numbers of an undetermined bacillus in the blood of the fish which died. By carefully removing all affected fish and thoroughly cleansing the tanks the disease appears to have been eradicated. Special arrangements were made during the year for the admission of private parties including gosha ladies, during the hours in which the Aquarium is ordinarily closed to the public.

Meteorology.

864. The number of observatories under the control of the Meteorologist during the year was 25. The chief work of the Madras Meteorological office continued to be the publication of the daily weather report and of the rainfall returns of the Presidency. The former was published earlier in the day than in the previous year and was supplied to 127 officials and 11 paying subscribers.

Rain-recording stations.

865. The number of rain-recording stations, excluding observatories, rose from 472 to 473, and 97 per cent. of these were inspected during the year. Village rain-gauge funnels and measuring cans were made under the supervision of the Madras Meteorological Office and supplied to six Collectors.

Finance.

866. The total expenditure of the department during the year was Rs. 14,343 of which Rs. 12,859 was under salaries.

Astronomy.

867. At Kodaikanal the work was continued on the same general lines as in recent years. The year was a somewhat less favourable one for solar work than usual and there were 32 days on which no observations were possible owing to cloud. Photographs of the sun on a scale of eight inches to the diameter were taken on 324 days and spectroheliograms in calcium light were obtained on 326 days. A new spectroheliograph constructed in the observatory workshop was completed early in the year and photographs of the sun's disc in hydrogen light were taken with this instrument on 165 days. Prominences were recorded photographically on 281 days. High dispersion solar spectra were photographed whenever the conditions permitted, mainly for the purpose of studying the movements taking place in and near spots, and also for measuring the speed of the solar rotation in the higher regions of the sun's atmosphere. Visual observations of sunspots and prominences were continued as usual. The very rapid decline in spot activity noted in the last report continued during 1911 and there were only 56 new groups observed as against 152 in 1910. There were 158 days on which the sun's disc was free from spots and the average daily number was 0·7 against 1·8 in the previous year. The prominences showed a reduction of 28 per cent. compared with 1910, the mean profile area per diem being 2·91 square minutes of arc against 4·10 square minutes in 1910. As regards distribution many more prominences were found in the southern hemisphere of the sun than in the northern, which was also the case with spots. In addition to the solar work a number of photographs were secured of the spectra of the comets 1911-*b* (Kiess) and 1911-*c* (Brooks), as well as direct photographs of these objects. A continuous registration of earthquake disturbances is made with a Milne seismometer and 95 earthquakes were recorded during the year. Magnetic observations, both continuous photographic records and absolute eye observations, were made throughout the year by the Survey of India under the general direction of the Director of the Observatory. At Madras the only astronomical observations made are those necessary for the maintenance of an accurate time service for the whole of India. The time gun at Fort St. George was fired correctly on 721 occasions out of 730 giving a percentage of success of 98·8. The semaphore at the Port Office, Madras, was dropped correctly at 1 P.M., on every day except three, when it was dropped correctly at 2 P.M.

CHAPTER VIII.

ARCHÆOLOGY. (1911-1912.)

[*Annual Report of the Archæological Department, Southern Circle, Madras, for the year 1911–1912; G.O. No. 919, Public, dated 29th July 1912 and G.O. No. 1039, Public, dated 20th August 1912.*]

Archæology. Conservation.

868. No excavation work was undertaken during the year. Of a budget grant of Rs. 40,000 for repairs to monuments more than Rs. 37,000 were expended in the year. Two monuments were declared 'protected'—Abdul Wahab Khan's tomb at Kurnool and the temples of Narasimhaswami and Ranganathaswami on the hill at Nāmakkal. Expenditure was incurred on the conservation of 125 monuments during the year. Among important monuments on the list selected for conservation were the Achutanarayanaswami temple at Hampi in the Bellary district, the Virabhadraswami temple at Lepakshi in the Anantapur district, the Mangaladevi temple at Mangalore, the temple, tank and mantapam at Valikondapuram in the Trichinopoly district, the Little Fort at Tanjore and the Sarangapaniswami temple at Kumbakōnam. In addition to the work of classifying and arranging the archæological objects which have accumulated in the Madras Museum as the result of excavations in former years the Superintendent toured in 16 districts during the year. An additional Superintendent was appointed to relieve the Superintendent of some of the work connected with conservation in order that the latter might be able to devote more time to the preparation of a classified catalogue of antiquities in the Museum.

General.

869. His Excellency Lord Carmichael and the Acting Director-General of Archæology inspected the office in the course of the year. Three hundred and eighty-five photographs were taken and added to the collection which now numbers 2,864. The fact that copies of the photographs taken were available for sale to the public was notified for the first time and a sum of Rs. 52–8–0 was realised from this source.

Expenditure.

870. Expenditure amounted to Rs. 71,223, of which Rs. 37,805 were spent on conservation.

Epigraphy.

871. During the field season 128 villages in all were visited, the Assistant Archæological Superintendent for Epigraphy himself visiting 59. Estampages of 465 inscriptions (70 being from Mysore) covering a period of nearly 2,000 years, were secured. The fresh materials obtained are valuable as contributing to the elucidation of the history of the Pallava, Chola, Pandya and Vijayanagara dynasties, and give interesting details of early methods of revenue administration in Southern India. Tentative transcripts were prepared of almost all the epigraphs obtained during the year. A set of copper-plates from Muvaraivenran in the Rāmnād district, bearing inscriptions relating to the later Pandya kings, has been secured during the year. Nine other sets of copper-plates have been examined, the originals in most cases being secured for the Madras Museum. Coins and squeezes of stone and other inscriptions were examined and various papers prepared for epigraphical publications. Thirty-three photographs were taken during the year and five drawings prepared. The total expenditure amounted to Rs. 14,731.

Expenditure.

CHAPTER IX.

MISCELLANEOUS.

ECCLESIASTICAL JURISDICTION.

General.

872. The Government maintain an ecclesiastical establishment. At the head of the Church of England portion of the establishment is the Bishop of Madras and at the head of the Church of Scotland portion, the Presidency Senior Chaplain. The Ecclesiastical establishment consists of (*a*) a Bishop, an Archdeacon (who must be a Chaplain resident in India and is appointed by the Bishop), 35 Chaplains, and a Registrar, and (*b*) 4 chaplains of the Church of Scotland. The services of this establishment are extended to non-official Europeans and others resident within the Presidency. The salaries and allowances of the Bishop and Archdeacon may be fixed and altered by the Secretary of State in Council, provided that no additional charge is imposed on the revenues of India. Two Chaplains of the Church of Scotland must be on the establishment; with the sanction of the Secretary of State, the Governor-General in Council may grant to any other denomination of Christians such sums of money as may be expedient for the purpose of instruction or for the maintenance of places of worship. The Government have communications with the Bishop in Travancore and Cochin and make a grant of Rs. 250 per mensem to the Bishop who is responsible for spiritual ministrations to the English congregations at Trivandrum and Quilon. The Government also pay an allowance to the Roman Catholic Archbishop in Madras and pay or subsidize Roman Catholic priests and Wesleyan ministers to minister to the troops in military stations; they subsidize also missionaries and other clergymen ministering to Europeans in the general service of Government in stations not served by Chaplains. The Government build, furnish and repair churches for the use of soldiers, both Protestant and Roman Catholic, or pay for their sittings and make grants for non-military churches. Marriages between Christians may be solemnized not only by persons who have received episcopal ordination and by clergymen of the Church of Scotland, but also by ministers of religion licensed for the purpose, by Marriage Registrars and by persons licensed to grant certificates of marriage between Indian Christians; these licences are issued and appointments as Registrars are made by the Local Government so far as regards the territories under their administration, and the Native States situated within or bordering on the Presidency of Fort St. George. Quarterly returns of baptisms, marriages and burials are sent by the clergy through the Registrar-General of Births, Marriages and Deaths to Government. Quarterly returns of baptisms and burials are collected from non-conforming clergymen also and returns of marriages from those who are legally authorised to solemnize them.

43 Vic., c. 3.

Act XV of 1872.

Act II of 1872.

The Church of England.

The Bishop.

873. The diocese of Madras is coterminous with the Madras Presidency, but the Bishop also exercises jurisdiction over the Native State of Mysore, the British Province of Coorg and a portion of Haidarabad The arrangement settled in 1866 by which Berar was regarded as ecclesiastically connected with the Madras Diocese ceased in 1903 and it was then decided that the Bishop of Nagpur should exercise ecclesiastical control in that territory. In 1911 the Aurangabad division of the Haidarabad State was transferred from the Diocese of Madras to that of Bombay. The Nugur, Albaka and Cherla taluqas transferred in 1905 from the Central Provinces to the Madras Presidency continue to be under the ecclesiastical jurisdiction of Bishop of Nagpur. The limits of the diocese may be altered from time to time by His Majesty by letters patent. The Bishop is subject to the jurisdiction of the Bishop of Calcutta as Metropolitan. He is appointed by the Crown and is entitled to a pension after holding his office for fifteen years. The Crown is empowered to grant the Bishop within the limits of

3 & 4 Will. c. 85, s. 93, 94 & 96.

34 & 35, Vic., c. 62.

his diocese the exercise of episcopal functions and of ecclesiastical jurisdiction for the superintendence and good government of the ministers of the Church of England therein. The Bishop exercises jurisdiction over the clergy holding his licence who are stationed within the Native States of Haidarabad and Mysore and the British Province of Coorg, with the approval of the Governments of India and Madras, since the latter Government appoints Chaplains from the Madras Ecclesiastical establishment to serve within those territories; and in virtue of general episcopal powers conferred upon him by his consecration. Rules may be made by the Crown regarding the absence of the Bishop on furlough or medical certificate, provided that no further expenditure of the revenues of India be incurred thereby than is already authorised under existing Acts of Parliament and leave may be granted to the Bishop by the Governor in Council in accordance with these rules. The Bishop may perform episcopal functions under commission from a Bishop in England. The Bishop superintends the spiritual work of the diocese; holds confirmations; ordains, licenses and exercises jurisdiction over the clergy; visits all the stations at which clergy are located and many of the out-stations as a rule once in three years; inspects their work in hospitals and schools; inspects the registers and other church books; recommends to Government the appointments and transfers of Chaplains; reports on proposals for new churches, for improvements in churches, or for changes suggested in any ecclesiastical arrangements; and consecrates new churches and cemeteries.

Royal Warrants, 4th Nov. 1884, 28th July 1888 and 11th Feb. 1901.
15 & 16 Vic., c. 52.
16 & 17 Vic., c. 49.
37 & 38 Vic., c. 77.

874. In the superintendence of missions and in the pastoral government of the Indian congregations the Bishop was largely relieved by the consecration, on the 28th of October 1896, of a Bishop who exercises his episcopal functions by commission in the districts of Tinnevelly and Madura. The Archdeacon attends more particularly to the details of church establishments, church furniture and the maintenance and repair of churches and cemeteries and communicates with Government on these subjects. Persons may be admitted into the orders of deacon or priest to officiate in India by the Archbishop of Canterbury or by the Archbishop of York or by the Bishop of London or by any Bishop specially authorised for the purpose. The Chaplains are divided into three classes consisting of Senior Chaplains, Junior Chaplains, and Probationers respectively. The period of probation is three years. Time spent in India on service under the Diocesan Additional Clergy Fund or on other service approved by the Bishop and the Government of India may be included in the period of probation. A clergyman must have been three years in orders before his nomination as a probationer. Promotion from the junior class to the senior is attained on the completion of ten years' service in the junior class. The term of service for a full pension is twenty years from the date of becoming a Junior Chaplain; seventeen of these years must have been spent in actual service. Smaller pensions or gratuities are granted on retirement on account of sickness before a full pension has been earned. Retirement is compulsory on the completion of twenty-five years' service, but exceptions are occasionally made to this rule in special circumstances. One of the Chaplains is appointed by the Bishop to be his Domestic Chaplain. The others are appointed by Government to the charge of stations, 28 in number; the five ecclesiastical parishes in Madras and three in Bangalore are treated as separate stations. Every Chaplain at a station in which there are European troops visits the military schools and hospitals under stated rules. Out-stations are attached to several stations; they are visited periodically by the Chaplain of the station. Besides the Chaplains there are other European and Eurasian clergymen, acting under the licence of the Bishop; some of these are in receipt of allowances from Government. The latter, a few of whom are missionaries, minister to European congregations which are not entitled to the services of a resident Chaplain in the service of Government. The missionaries, as such, are not connected with Government. Of the clergy who are neither Chaplains nor missionaries some receive salaries from one or other of the two societies which provide additional clergy in the diocese or from local or other private contributions, or from both. Indian clergymen, Tamil and Telugu, constitute a continually growing class. The affairs of the Indian congregations in matters not spiritual, are managed by councils composed of Indian clergy and laity, and by the committees of the missionary societies.

The Bishop in Tinnevelly and Madura.

The Archdeacon.

59 Geo. 3, c. 60.

Chaplains.

Other clergymen.

875. The cathedral of the Madras diocese is the Church of St. George in Madras, which is vested under a Trust created by the East India Company on the 9th of

Buildings.

February 1821 in a body of Trustees who are appointed by the Government of Madras. Two Chaplains are assigned to it. The Bishop appointed in 1902 an honorary chapter of six canons attached to the cathedral. These honorary canons are chosen by the Bishop from among the clergy of the diocese and their titles are recognised by Government as a matter of courtesy. At every station where there is Church property belonging to Government two lay communicants, one of whom should be a gazetted officer, civil or military, in the service of Government, are, on the recommendation of the Chaplain and the nomination of the Bishop, appointed by Government to be Lay Trustees; and form, with the Chaplain as president, a church committee. The duties of Lay Trustees are in many respects similar to those of churchwardens in England. The churches for European congregations are, with rare exceptions, the property of Government and consecrated.

Establishment.

876. On the 31st March 1912 there were 264 clergymen officiating under the licence of the Bishop of Madras. Of these, 48 were officers of the ecclesiastical establishment, that is to say, 35 Chaplains and 13 clergymen receiving allowances from Government. In addition to these there were in the diocese 43 English missionaries, 154 Indian clergymen and 19 retired clergymen. According to the census of 1911 the number of European and Eurasian members of the Church of England within the diocese of Madras was 17,512 and the number of Indian members was 151,361.

Travancore and Cochin.

877. The ecclesiastical supervision of the Church of England in Travancore and Cochin, exercised with the tacit consent of the rulers of those States by the Bishop of Calcutta until 1835 and later by the Bishop of Madras, was transferred in 1880 to a special Bishop who is called the Bishop of the Church of England in Travancore and Cochin and was consecrated in accordance with a royal licence issued under the Jerusalem Bishoprick Act (5 Vic., c. 6). The number of Indian Christians then transferred from the superintendence of the Bishop of Madras was 16,000 baptized and 2,100 under instruction. The number of Indian Christians belonging to the Church of England in Travancore and Cochin was according to the census of 1911, 57,496.

The Church of Scotland.

878. The establishment of the Church of Scotland in the Presidency at the close of the year consisted of four Chaplains, including the Presidency Senior Chaplain absent on combined leave. The three stations ordinarily served by these Chaplains were Madras, Bangalore and Secunderabad; but when there is a draft from a Scottish regiment at the Wellington depôt services are held there for part of the year, acting Chaplains being appointed when available for this duty. In addition to the Government establishment of four Chaplains, there are in the Madras Presidency two ordained Church of Scotland ministers, one of whom acts without allowances as Chaplain to the railway community at Arkonam, and the other officiates as Joint Chaplain at Madras when the Presidency Senior Chaplain is absent on his annual tour of visitation.

The Roman Catholic Church.

879. The Roman Catholic establishments of Southern India are to be classed as missionary in the sense that they are not State establishments. Until 1886 there were no Roman Catholic Bishops' sees in the Presidency, but Vicariates Apostolic were created by the Pope, and the Archbishop of Goa was given extraordinary jurisdiction beyond Portuguese territory. The Vicariates were presided over by titular Bishops. The establishment of the hierarchy in India was proclaimed by His Holiness Pope Leo XIII in his Apostolic letter *Humanæ Salutis Auctor*, dated 1st September 1886. By this Bull the pre-existing Apostolic Vicariates were constituted episcopal churches and from among the new dioceses Verapoli, Madras and Pondicherry were elevated to the honour of archiepiscopal dignity. The Archbishop of Verapoli has as suffragans the Bishop of Quilon and the Vicars Apostolic of Trichur, Changanachary, Ernakulam and Kottayam; the Archbishop of Madras, the Bishops of Nagpur, Vizagapatam and Haidarabad; and the Archbishop of Pondicherry, the Bishops of Mysore, Coimbatore and Kumbakōnam. The Bishops of Trichinopoly and of Mangalore are suffragans to the Archbishop of Bombay. The Roman Catholic Archbishop of Madras receives an allowance of Rs. 500 per mensem from the Madras Government for furnishing ecclesiastical returns. The Roman Catholic Church is not dealt with in any legal enactments in this country except incidentally.

ECCLESIASTICAL. (1911–1912.)

Church of England.

880. On the 31st March 1912 there were 264 clerks in Holy Orders officiating under the licence of the Bishop of Madras, of whom 35 were chaplains of the Ecclesiastical establishment and 13 were clergymen receiving allowances from Government in the Civil department. There were in the diocese 38 European missionaries, 5 European clergymen ministering to English congregations and 154 Indian clergymen. During the year the Bishop of Madras ordained 1 deacon and 9 priests, of whom one was a European, while the Bishop in Tinnevelly and Madura ordained 2 priests, both of whom were Indians. In the course of the year the Bishop visited on tour many important places in the Presidency. The Aurangabad division of the Haiderabad State was transferred from the jurisdiction of the Bishop of Madras to that of the Bishop of Bombay on the 1st October 1911.

Voluntary contributions.

881. Alms and other devotions of the people offered through clergymen ministering to English congregations during the year amounted to Rs. 1,41,032.

The Church of Scotland.

882. At the close of the year the establishment of the Church of Scotland in the Presidency consisted of four chaplains—the Presidency Senior Chaplain (on leave), the acting Presidency Senior Chaplain and the Chaplains at Secunderabad and Bangalore.

STATIONERY. (1911–1912.)

Stationery General.

883. The value of the stock with the Superintendent of Stationery at the beginning of the year 1911–1912, was Rs. 8,85,050 (English stores Rs. 6,34,427 and Indian stores Rs. 2,50,623) against Rs. 5,02,705 (English stores Rs. 4,41,881 and Indian stores Rs. 60,824) in 1910–1911.

Receipts.

884. The total value of stores received during the year amounted to Rs. 11,26,463 (English stores Rs. 6,90,493 and Indian stores Rs. 4,35,970) against Rs. 14,53,847 (English stores Rs. 6,64,058 and Indian stores Rs. 7,89,789) in 1910–1911.

Issues.

885. The total value of issues amounted to Rs. 9,45,886 (English stores Rs. 5,04,914 and Indian stores Rs. 4,40,972) against Rs. 10,71,502 (English stores Rs. 4,71,512 and Indian stores Rs. 5,99,990) in 1910–1911. The value of stationery debited to Local Funds, etc., and of stationery issued on payment amounted to Rs. 13,138 against Rs. 24,491 in the preceding year. The value of the closing balance of stores for the year was Rs. 10,65,627 (English stores Rs. 8,20,006 and Indian stores Rs. 2,45,621) against Rs. 8,85,050 (English stores Rs. 6,34,427 and Indian stores Rs. 2,50,623) in the preceding year.

THE GOVERNMENT PRESS. (1911–1912.)

Finance.

886. The total receipts of the year were Rs. 65,994, or Rs. 12,976 less than those of the previous year, while the total disbursements amounted to Rs. 4,50,981, including Delhi Coronation Durbar Bonus (Rs. 6,245), against Rs. 4,00,411 in the previous year; the large difference was due to the value of special plant obtained from Europe.

Publications.

887. The number of copies of the Indian Law Reports, Madras Series, printed during 1911 was 5,850, of which 2,267 copies were issued free to officials, 2,735 to subscribers, the remainder being copies either for sale or sent to Calcutta for reserve. The receipts under this head were Rs. 20,437 and the charges Rs. 7,733 against Rs. 20,413 and Rs. 8,190 respectively in the preceding year. The total number of each issue of the *Fort St. George Gazette* printed during the year was 1,720. Of these 1,403 complete gazettes and 497 parts were distributed free to officials, and 207 complete gazettes and 193 parts to subscribers. Subscriptions, sales and receipts on account of advertisements and the value of copies supplied to officials at subscription rates amounted to Rs. 37,750 against Rs. 37,641 in 1910–1911. The total number of pages printed for the year was 8,415 against 8,542 and the cost of production was Rs. 27,022 against Rs. 28,078 in 1910–1911.

Stores and Plant.

888. The value of the stock of stores at the beginning of the year was Rs. 1,31,924. Receipts amounted to Rs. 1,09,132 and issues to Rs. 1,30,970, leaving at the end of the year a balance of Rs. 1,10,086. The value of plant obtained through the Director-General of Stores was Rs. 72,923.

Printing and Binding.

889. The total charges against printing, including the cost of establishment, amounted to Rs. 3,43,242 or Rs. 7,941 less than in the previous year. The outturn of composing work was equal to 281,091 standard pages of pica solid foolscap folio. The number of impressions was 123,075,674 against 124,950,576, while that of forms printed was 128,772 against 129,124 in 1910–1911. The average cost per standard page of pica solid foolscap folio was As. 14 at the Central Press, Rs. 1–14–6 at the Penitentiary Branch and As. 15–2 for Ootacamund Secretariat work and Rs. 1–14–2 for Nilgiri District work, while the cost per 1,000 impressions was Rs. 1–1–10, Rs. 0–5–3, Rs. 6–9–11 and Rs. 5–14–6 respectively. The total cost of binding, ruling and numbering was Rs. 79,621 against Rs. 78,746 in the previous year.

Foundry.

890. During the year the production at the Central Press consisted of 111 punches, 575 matrices, 76,386 lbs. of type, quads, etc., and 12,517 lbs. of stereo and electro type, while at the Penitentiary Branch 6,138 lb. of lead were cast. The average cost per pound was As. 6–5 at the Central Press and As. 3–3 at the Penitentiary Branch against As. 5–7 and As. 2–9 respectively in 1910–1911.

Miscellaneous.

891. At the Central Press the average monthly earnings of compositors for piecework were Rs. 14–6–5 against Rs. 14–9–11 in the previous year. At the Penitentiary Branch 10 convict compositors were employed throughout the year and they earned an average of Rs. 6–6–4 per mensem. At the Ootacamund Branch Press the average earnings of compositors, including hill allowances, amounted to Rs. 37–1–10, against Rs. 33–12–8 in the previous year. Sixty-nine students appeared at the last Government Technical examinations from the classes at the Central Press, of whom 18 passed. At the Ootacamund Branch 6 appeared for the examination and 1 passed.

DISTRICT PRESSES. (1911–1912.)

892. The value of the work done by the District Presses including the Branch Press at Ootacamund was Rs. 94,831 in 1911–1912 as against Rs. 99,887 in 1910–1911. There was a decrease of Rs. 280 under cash receipts and of Rs. 651 under charges. There was a decrease of about Rs. 2,000 under cash receipts in Ganjām, which the Collector attributes to decrease in job work.

THE CHEMICAL EXAMINER'S DEPARTMENT. (1911.)

[*G.O. No. 551, Public, dated 8th May 1912; Statistics of British India, Part VI—Administrative and Judicial—Medico-legal Investigations.*]

General.

893. The number of articles examined by the department during the year rose from 3,044 to 4,034. The figures, however, include 1,075 samples of cocaine tested. Excluding these cases there is a slight decrease in the figures as compared with the previous year, but this is counterbalanced by the fact that, owing to the decreasing use of arsenic in human poisoning cases, more laborious methods for the detection of organic poisons are rendered necessary. About one-third of the general analyses were performed for the Customs Department. Fifty-five analyses were undertaken for private parties against 83 in last year.

Medico-legal Investigations.

Human poisoning.

894. Two hundred and eighteen cases of suspected human poisoning requiring 1,436 analyses were investigated. The percentage of detection again fell from 53·51 to 51·37, the fall continuing to be coincident with the annual decline in the number of arsenic cases detected. The cases in which mercury was detected rose from 12 to 17. Poison was detected in 112 cases; inorganic poisons being found in 49 cases and organic poisons in 63 cases. In the former class arsenic or mercury or both were detected in 42 of the cases; while in the latter class aconite was present in 21 of the cases. The other poisons detected included sulphuric acid, opium, strychnine, atropine, oleander, calotropis, lal chitra and cannabis indica.

895. There were 111 cases of animal poisoning requiring 393 investigations. Poison was detected in 80 cases and the percentage of detection rose from 67·37 to 72·07. Of the cases detected, arsenic and its compounds were present in 55, arsenic with organic poisons in 3, mercury in 1, mercury and thevetin 1, calotropis in 3, and thevetin in 17 cases. The use of arsenic as a cattle poison is not decreasing as it is in the case of human poisoning and the number of these cases rose this year from 48 to 58. Seven hundred and fourteen articles were examined for blood or seminal stains and the percentage of detection in the 166 cases involved rose from 69·23 to 75·9. Animal poisoning. Stains.

896. There were 23 miscellaneous cases in which 79 articles were examined. Miscellaneous.

CHARITABLE INSTITUTIONS. (1911–1912.)

897. The Monegar Choultry, the Native Infirmary, the Foundling Asylum and the Raja of Venkatagiri's choultry continued under the management of the Directors of the Monegar Choultry. The balance at the beginning of the year was Rupees 6,002–11–11. The receipts from all sources, excluding those of the Raja of Venkatagiri's Choultry, were Rs. 20,486–1–2. Of these receipts Government contributed Rs. 9,362–0–11, while Rs. 6,635–3–0 were realized from Government and other securities. Subscriptions and donations amounted to Rs. 1,374–15–0 and the Corporation of Madras contributed Rs. 2,253–14–3. A sum of Rs. 660 was recovered from the Raja of Venkatagiri's Choultry, and Miscellaneous receipts amounted to Rs. 200. The income of the Raja of Venkatagiri's Choultry was Rs. 5,229–14–0 including an opening balance of Rs. 1,279–12–4. Of this sum Rs. 3,318–12–10 were spent in the relief of paupers, leaving a balance of Rs. 1,911–1–2 at the close of the year. Excluding that on the Raja of Venkatagiri's Choultry, the expenditure on all these institutions during the year was Rs. 20,420–4–9, of which Rs. 8,882–14–4 was spent on the Monegar Choultry and Rs. 9,283–0–9 on the Native Infirmary. The daily average number of paupers in the Monegar Choultry was 76·54 against 59·60 in the previous year; while in the Raja of Venkatagiri's Choultry the daily average number of in-door paupers was 19·72 and of out-door paupers 88·33 against 27·42 and 91·85 last year. The daily average cost of a pauper in the Monegar Choultry was As. 2–2; while the corresponding averages for an in-door and an out-door pauper in the Raja of Venkatagiri's Choultry were As. 2–5 and 9 pies respectively. The daily average number of foundlings and stray children was 2·98 and the daily average cost of diet was As. 1–3 against 4·03 and As. 1–1 in the preceding year. Monegar Choultry, etc. (1911).

898. In the Triplicane Langarkhana, there were 3 inmate paupers at the opening of the year and 6 at the close, the number of those in receipt of monthly doles remaining the same (3). There was an increase in the number of those in receipt of monthly doles of rice from 136 to 150 and a decrease in those in receipt of daily cooked food from 63 to 49. The average cost of aid to each pauper per mensem was Rs. 2–2–8 against Rs. 1–13–2 in the preceding year. The receipts of the institution including an opening balance of Rs. 1,092–14–7 amounted to Rs. 6,054–0–8 of which Rs. 4,800 was Government grant, the expenditure being Rs. 5,493–15–4. Triplicane Langarkhana.

899. Excluding dispensaries there were 3,392 charitable institutions in the Presidency with an income of 14·77 lakhs of rupees, and 115 garces of paddy during the year under report. Two thousand three hundred and fourteen were maintained entirely by the general public with contributions in the shape of subscriptions, donations and endowments in land and money amounting to 9·24 lakhs of rupees. Four hundred and seventy-two institutions were supported by Government at a cost of 1·50 lakhs of rupees and 57 were kept up partly by Government and partly by the public at a cost of Rs. 1·99 lakhs. The maintenance of the remaining 549 institutions costing about 2·03 lakhs of rupees devolved wholly or in part on local bodies. Classifying the institutions according to the objects to which their funds were devoted, there were 2,452 institutions intended for travellers, who were provided with accommodation and in many cases with cooked food or with raw rice and other supplies. Of these 1,019 were exclusively for Hindus, 52 for Muhammadans, 1 for Europeans and Eurasians, while the remaining 1,380 were not restricted to any Miscellaneous.

particular class. For the relief of paupers, 316 institutions were maintained, of which 234 were restricted to Hindus, 14 to Muhammadans and 2 to Europeans and Eurasians, while the remaining 66 were open to all classes irrespective of caste or creed. There were 612 institutions for the exclusive feeding and accommodation of Brahmans and Bairagis (Hindu devotees). There were also 9 institutions for orphans and 1 for the support of the blind, the deaf and lepers. The total number of persons aided during the year at all the charitable institutions was 13,294,643 and the average number in receipt of relief daily was 42,876 or about one in every thousand of the population.

MUHAMMADANS IN THE SERVICE OF GOVERNMENT. (1911–1912.)

900. The total number of Muhammadans in the superior grades of Government service at the close of the official year 1911–1912 was 8,188 as compared with 8,161 in the preceding year, and 7,899 in 1909–1910. In the Public Works Department the number of appointments held (26 out of 1,345 as against 26 out of 1,304 in the preceding year) maintained practically the same percentage as in last year. Excluding these appointments there were in all 56,329 appointments in superior service and of those 8,162 or a percentage of 14·49 were held by Muhammadans. The corresponding figures for last year were 55,626, 8,135 and 14·62 respectively. As according to the census of 1911 the percentage of Muhammadans to the total population of the Presidency is 6·6 the figures would seem to indicate a proportionally large employment of Muhammadans, but of the total number (8,188) employed, 5,875 held appointments of which the annual salary was Rs. 120 or less, while 1,589 were employed on salaries between Rs. 120 and Rs. 250 a year. Muhammadans were, as usual, employed in greatest numbers in the Police Department where 6,665 held appointments, of which number 5,828 were constables on Rs. 8 to Rs. 12 a month. The department of Law and Justice (Courts of Law) employed 414 Muhammadans against 379 in the preceding year. In all other departments the figures were comparatively small, being 260 in the Land Revenue Department, 217 in the Educational Department, and 119, 115 and 102 in the Forest, Registration and Salt Departments, respectively. In all cases the majority of the appointments were in the lower grades.

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